Adam Miksits

amiksits @kth.se | adam.miksits @ericsson.com

- Decision & Control Systems, EECS, KTH
- Industrial PhD Student at IoT&CPS, Ericsson Research
- Karl Henrik Johansson (KTH), José Araújo (Ericsson)
- Master in Systems, Control & Robotics, KTH 2021
- Research topics
  - Perception-based control
  - Collaborative robotics
  - 5G-enabled control and robotics
- Perception-based control of 5G-enabled collaborative robots
  - Researching different aspects of a pipeline for controlling collaborative robots based on sensor information from cameras or LiDAR. Will also investigate how offloading parts of the pipeline to a 5G cloud server or running them on the robots affects performance.
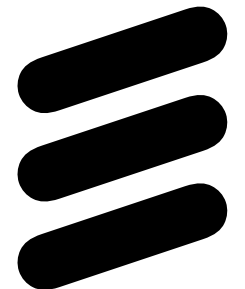
Ahmad Saeed Khan

ahmad-saeed.khan @oru.se

- School of Science and Technology, Örebro University
- Industrial PhD Student with H&M
- Federico Pecora, Todor Stoyanov, Marco Trincavelli
- Masters in Computer Science, Government College University (2014)
- 6 years experience of teaching
- Research topics
  - Machine Learning
  - Optimization
- Data-driven Optimization
  - Counterfactual estimation from historical data
  - Applying mathematical programming on these estimation to solve optimization problems.

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Ahmet Ercan Tekden

tekden @chalmers.se

- PhD student at Department of Electrical Engineering, Chalmers University of Technology
- Supervisor: Asst. Prof. Yasemin Bekiroglu
- Co-supervisor: Assoc. Prof. Yiannis Karayiannidis
- Msc in Computer Engineering, Bogazici University (2020)
- Bsc in Computer Engineering, Bogazici University (2017)
- Research Assistant (2017-2021) at Horizon-2020 project IMAGINE (https://imagine-h2020.eu/).
- Research topics
  - Representation Learning for Robotics
  - Robot Manipulation and Grasping
  - Robot Learning
- Research Project:
  Learning Data-Efficient Structural Representations for Robot Manipulation
  - Choice of input data and its representation has a significant effect on the performance of an overall robotic system. This project will investigate various representations that can be used for data efficient robot manipulation. Initial focus: compositional and spatial representations.

Alan Lahoud

alan.lahoud @oru.se

- Department of Computer Science at Orebro University, Multi-Robot Planning and Control Lab
- Industrial PhD Student | H&M Group
- Supervisors:
  - Orebro University: Federico Pecora , Johannes Stork
  - H&M Group: Marco Trincavelli
- Electrical Engineering - University of Sao Paulo (2013 - 2018)
- Work Experience: Data Science & Analytics (2018 – 2021)
- Research topics:
  - Machine Learning & Optimization
  - Causal Reasoning
- Combining Machine Learning and Optimization Problems
  - Learn expressive Optimization Problem formulations using Machine Learning
  - Deal with scenarios decisions affect the Optimization Problem formulations
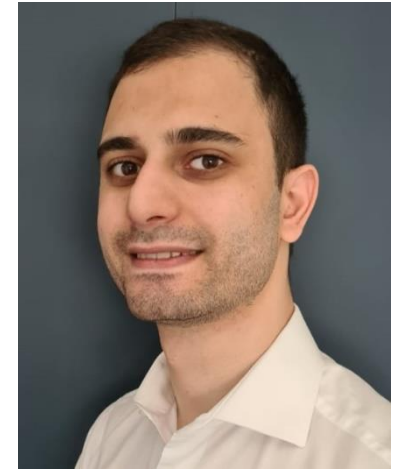
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Aleksandra Obeso Duque

alekodu @cs.umu.se

- Department of Computer Science, Umeå University
- Industrial PhD Student at Ericsson AB
- Supervisors:
  - Academia: Erik Elmroth and Cristian Klein
  - Industry: Björn Skubic
- Researcher at Cloud Systems and Platforms, Ericsson AB (2018 - Present)
- Master in Computer Science, Uppsala University (2018)
- Research topics:
  - Mobile Edge Cloud (Mobile Network <-> Distributed Cloud)
  - Performance Optimization
  - Automation and Autonomy
- Intelligent and Unified Service Mesh for an Autonomous Network-Compute Fabric
  - Evaluating Service Mesh-based traffic management for Mobile Edge Cloud
  - QoS assurance support in Service Mesh for Mobile Edge Cloud
 - Cloud-native application emulation and benchmarking tool

Ali Nouri

ali.nouri@volvocars.com

- Department of Computer Science and Engineering, Chalmers

- Industrial PhD Students at Volvo cars
  - Academic Supervisor: Dr. Christian Berger
  - Industrial Supervisors: Dr. Fredrik Törner, Dr. Reza Khanzadi, Dr. Håkan Sivencrona

- M. Sc Engineering in Mechatronics, Politecnico di Torino (2015)

- Senior system safety engineer in Autonomous Drive , Volvo Cars (2018-Now)

- Sweden representer in:
  - ISO/PAS 8800 (Safety and Artificial Intelligence)
  - AI/ML subgroup of ISO/TS 5083 (safety for automated driving systems)

- Research topics
  - Autonomous systems
  - AI/ML

- Assuring Safety for Rapid and Continuous Deployment for AD
  Identify possible methodologies and safety concepts that may be suitable for gradual functional development and deployment of safety-relevant system
  Project description: https://youtu.be/YRlSpd6NIm8
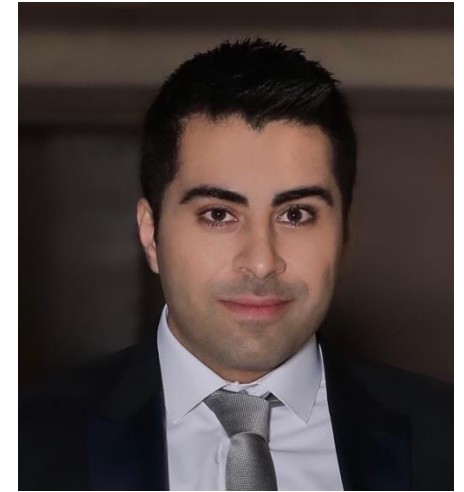
Amir Enayati Kafshgarkolaei

- Lund University

Anahita Baninajjar

anahita.bn94@gmail.com

- Department of Electrical and Information Technology, Lund University
- Supervisors: Amir Aminifar, Ahmed Rezine, Maria Kihl
- M.Sc. in Medical Engineering, Bio-electric, University of Tehran (2020)
- Research topics
  - Artificial Intelligence and Machine Learning
  - Safety-critical Systems
  - Biomedical Applications
- Reliable Decision Making in Machine Learning with Applications in Biomed Devices/Control
  - Identifying safety challenges in machine learning
  - Developing methods of machine learning for safety-critical applications in Internet of Things (IoT) domain

Andy Oertel

andy.oertel @cs.lth.se

- Department of Computer Science, Lund University
- Supervisor: Jakob Nordström
- MSc in Computer Science, Chemnitz University of Technology (2021)
- Research Assistant, Chemnitz University of Technology (2018-2021)
- Research topics
  - Pseudo-Boolean Proof Logging
  - Linear Pseudo-Boolean Optimization
  - Constraint Programming
- Proof logging for efficient Pseudo-Boolean Optimization
  - Developing state-of-the-art algorithms for combinatorial optimization using cutting planes methods and verifying their correctness with Pseudo-Boolean proof logging.

Anton Risberg Alaküla
anton.risberg_alakula @cs.lth.se

- Department of Computer Science, Lund University
- Supervisors: Görel Hedin & Niklas Fors
- MSc in Computer Science & Engineering, LU (2014)
- Work experience
  - 4 years at Sony, Xperia Themes (Java/Android)
  - 3 years at Knowit, IKEA websites (React/Cloud)
- Research topics
  - Software language tooling
  - Cloud computing for integrated development environments (IDEs)
  - Modelling languages
- Declarative IDE tooling in the cloud (ELLIIT funded)
  - Simplifying the creation of web IDEs for domain-specific languages
  - Textual & Visual languages
  - Minimizing latency in interactive tooling

Arka Ghosh

arka.ghosh @umu.se

- *Doctoral Student at "AI for Data Management Group"*
- Department of Computing Science, Umeå University, Sweden
- Supervisor: *Diego Calvanese*
- PG Diploma in Remote Sensing and GIS, Jadavpur University, India (2020)
- Masters in Computer Science, Pondicherry University, India (2018)
- Research topics
  - Artificial Intelligence in Geospatial Application
  - Ontology Based Data Access (OBDA) a.k.a Virtual Knowledge Graph (VKG)
  - Geo-Big-Data
- PhD Research: **Integration and Query Processing over Geo-enriched VKG**
  - Foundational and applied research in the context of flexible and efficient management of large amounts of richly structured data using the VKG paradigm.
  - It also aims to integrate VKGs enriched with **geospatial information** and at developing techniques for **ontology-driven visual query formulation and for visual query explanation** over **GeoVKG**s.

Ayush Kumar Varshney

ayushkv @cs.umu.se

- Department of Computing Science, Umeå University
- PhD Students at Umeå University
- NAUSICA: PrivAcy-AWare traNSparent deCIsions
- Supervisor: Professor Vicenç Torra
- Research topics
  - Data Privacy
  - Multi-criteria Decision Making
- Privacy-preserving data-driven decision-making models
  - Develop machine learning tools for automatic identification of privacy-preserving multi-criteria decision-making models.
  - Privacy by design
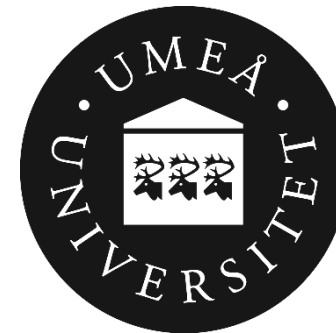
Bernhard Wullt

bernhard.wullt@se.abb.com

- Department of Information Technology, Uppsala
- Industrial PhD Student at ABB robotics
- Thomas Schön, Mikael Norrlöf, Per Matsson
- Master of Science in Mechanical Engineering, LTU, 2017
- Research topics
  - Reinforcement learning
  - Motion planning
  - Robotics
- Predictive obstacle avoidance for industrial robots acting in dynamically changing environments
  - Developing motion planning solutions for manipulators working in dynamic environments.

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ABB

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Christopher Kolloff
kolloff @chalmers.se

- Computer Science and Engineering, Chalmers
- Simon Olsson
- MSc in Biophysics, University of Basel (Switzerland)
- Research topics
  - Markov state models
  - Generative models
  - Protein dynamics
- Sampling of conformational space of proteins
  - Integration of physical symmetries and experimental constraints into deep generative models
  - Development of unsupervised density estimation and transition kernel estimation methods of highly structured data manifolds

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David Hasselquist
david.hasselquist@liu.se

- Department of Computer Science, Linköping University
- Industrial PhD Student at Sectra Communications
- Supervisors: Niklas Carlsson, Claes Lundström, Christian Vestlund
- MSc in Computer Science and Engineering, Linköping University (2020)
- Work experience at Linköping University, Sectra, and Ericsson
- Research topics
  - Computer networks
  - Security
  - Cloud computing
- Secure Communication using Non-trusted Autonomous Clouds
  - Performance evaluation and system optimizations
  - Future proofing of state-of-the art protocols and attacker models
  - Automated and data-driven side-channel attacks

David Weinberg

davidwei @kth.se

- Network and Systems Engineering, KTH
- PhD student
- Carlo Fischione, Qian Wang and Thomas Ohlson Timoudas
- M.Sc. In Electrical Engineering, Uppsala University (2021)
- Research topics
    - Reinforcement Learning (RL)
    - Multi-agent systems
    - Distributed control
- Distributed control in heating and cooling systems
    - Reduce energy consumption in building heating and cooling systems using RL.
    - Contribute to theoretical understanding of multi-agent RL.

Dennis Malmgren

dennis.malmgren @liu.se

- Department of Computer Science, Linköping
- Industrial PhD Student at Saab
- Main Supervisor Fredrik Heintz, Second Supervisor Patrick Doherty, Industrial Supervisor Daniel DeLeng
- MSc Engineering Physics, Kth (2021)
- Sw Architect, Systems Architect, ~10 years Knowit
- Systems Engineer, Decision Support and Integration Architecture ~3 years Saab
- Research topics
  - Multi-agent Systems
  - Deep Reinforcement Learning
  - Risk Management
- Multi-agent Reinforcement Learning for Collaborative Missions with Risk Management
  - Incorporate risk sensitivity and risk coordination in MARL algorithms

DIVYA BAURA

divyab @cs.umu.se

- Department of Computing Science, Umeå
- PhD in Computer Science, Umeå University (Since October 2021)
- Supervisor: Diego Calvanese
- Master of Computer Science, South Asian University (2020)
- Research topics
  - Artificial intelligence
  - Data Management
  - Knowledge Representation
- Privacy and Personalization in Virtual Knowledge Graphs (VKGs)
  - aims at introducing in the context of VKGs the notions of personalization and privacy, and at studying foundational and applied issues related to this extension.

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Filip Kronström
filipkro@chalmers.se

- Systems and Synthetic Biology, Chalmers University of Technology
- Ross D. King, Ievgeniia Tiukova
- M.Sc. Electrical Engineering, Lund University (2021)
- Internships at Caltech (2019) and Ericsson Research (2020)
- Research topics
  - AI and Machine Learning
  - Biological modeling
- Machine Learning for Automation of Science
  - Automating hypothesis generation, planning and execution of experiments, analysis of results, and model improvement for biological research on yeast cells.
 - Evaluation of models to guide future experiments.

CHALMERS

sys²bio
www.sysbio.se

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Finn Rietz
finn.rietz @uni-hamburg.de

- Department of Computer Science, Örebro
  - **A**utonomous **M**obile **M**anipulation Lab
  - Johannes A. Stork, Todor Stoyanov

- MSc Computer Science, Uni Hamburg 2021
  - 3-years research student (Knowledge Technology group)

- Research interests:
  - Deep Reinforcement Learning
  - Robotics
  - Explainable AI

- Ph.D. Topic / Project:
  - Topic finding ongoing
  - No associated project
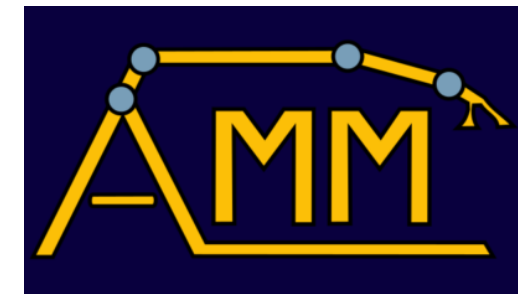
Gabriel Arslan Waltersson

gabwal @chalmers.se

- Department of Electrical Engineering, Chalmers
- Academic PhD student in robotics
- Supervisor, Yiannis Karayiannidis
- Systems, Control and Mechatronics, Chalmers 2021
- Research topics
  - Haptic perception
  - Friction modeling
  - AI
- Haptic-based Tracking of Objects in robotic grippers
  - Extend the capabilities of parallel robotic grippers.

Georg Hess

georghe @chalmers.se/georg.hess @zenseact.com

- Industrial PhD at Zenseact
- Department of Electrical Engineering, Chalmers
- Lennart Svensson (Chalmers) and Christoffer Petersson (Zenseact)
- M.Sc. Systems, control and mechatronics, Chalmers (2021)
- Research topics:
  - Multi-object tracking (MOT)
  - Deep learning
  - Transformers
- Deep multi-object tracking for self-driving vehicles
  - Develop deep MOT algorithms to replace traditional methods in the model-based regime.
  - Identify model-free MOT that makes optimal use of radar, lidar and camera data.

Gustav Zetterqvist
gustav.zetterqvist@liu.se

- Department of Automatic Control, Linköping University
- Supervisors:
  - Fredrik Gustafsson
  - Gustaf Hendeby
- MSc in Electrical Engineering, Linköping University (2021)
- Research topics
  - Signal Processing
  - Sensor Fusion
  - Target Tracking
- Wearable Microphone Arrays
  - Classic DOA estimation requires meter sized arrays.
  - The goal is to develop new concepts that allow for body worn arrays magnitudes smaller in size.
  - Tentative first applications:
    - ❖ Intelligent glasses for hearing impaired or infotainment (AR).
   - ❖ Security devices for shooter localization.

Isaac Ren
isaacren @kth.se

- Department of Applied Mathematics, KTH
- Supervisors: Martina Scolamiero, Wojciech Chachólski, Jimmy Olsson
- Master's in Advanced Mathematics, ENS de Lyon, 2020
- Research topics:
  - Topological Data Analysis
  - Homological algebra
- Thesis: Topological invariants for simplicial complexes
  - Invariants for multi-parameter persistence
  - Stabilization of invariants via hierarchical stabilization
  - Learning metrics on persistence modules using machine learning
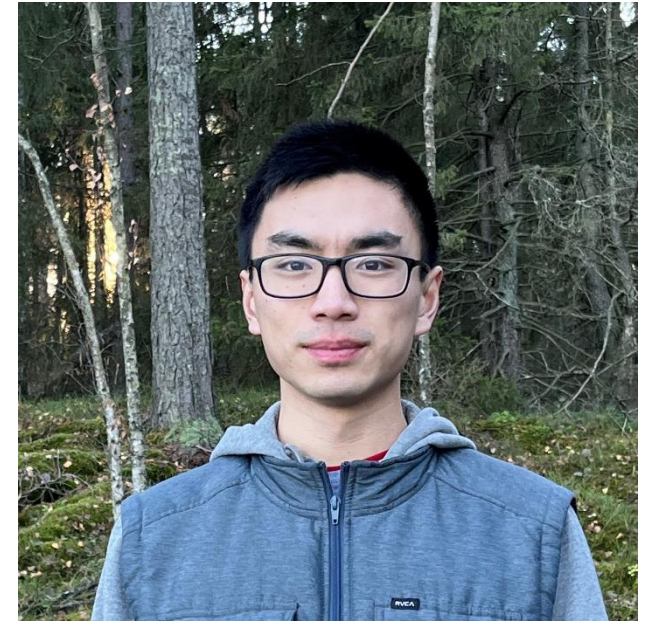
Javier Ron
javierro @kth.se

- Theoretical Computer Science, KTH
- Supervisors: Martin Monperrus, Benoit Baudry
- M.Sc. S.E. of Distributed Systems, KTH. 2021
- Backend engineer & game developer
- Research topics
  - Software Reliability
  - Chaos Engineering
  - Distributed Systems
- Chaos engineering applied in a spectrum of software application domains
  - Applying chaos engineering principles to different layers of the software stack produces valuable knowledge, aiming to improve software reliability.

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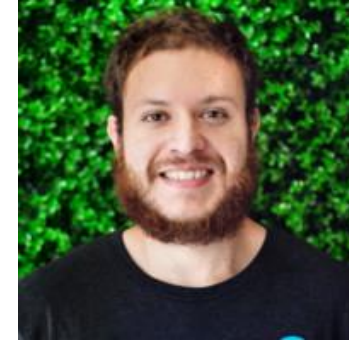
Jennifer Andersson

jennifer.andersson @it.uu.se

- Department of Information Technology, Uppsala University
- Supervisors: Jens Sjölund (UU) and Thomas Schön (UU)
- MSc Computational Science, Uppsala University (2020)
- BSc Physics, Uppsala University (2018)
- Previous research:
  - RL control of forestry crane manipulators (Umeå University)
  - Anomaly detection in the Elasticsearch Service (CERN)
  - Deep learning for classification of transit-like signals (NASA Ames)
- Research topics
  - Machine Learning
  - Data-driven Optimization
- Machine Learning for Improved Optimization
  - Deep quantile regression
  - Robust regression with deep implicit layers

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Joannes Vermant

joannes.vermant@umu.se

- Department of mathematics and mathematical statistics, Umeå University
- Supervisors: Klara Stokes, Maryam Sharifzadeh
- Master of mathematics, KULeuven, 2021
- Research topics
  - Robotics
  - Geometric graph theory
- Learning the motions of a stick beast
  - The goal is to find what the possible motions are of a given graph using learning algorithms.

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Johan Edstedt

johan.edstedt@liu.se

- Computer Vision Laboratory, Linköping University
- Supervisor: Michael Felsberg
- Co-Supervisor: Mårten Wadenbäck
- M.Sc. Applied Physics – Linköping University (2020)
- Research topics
  - Deep Learning
  - Geometric Constraints
  - Correspondence Learning
- Project Title: *Geometrically Constrained Learning for Vision*
  - In a nutshell: **Using geometric knowledge about the world to train and improve neural networks**
  - Currently working on dense correspondences between images (to be released)

Jonas Conneryd

jonas.conneryd@cs.lth.se

- PhD Student in Theoretical Computer Science at Lund University
- Supervisor: Jakob Nordström
- Research topics:
  - Proof Complexity
  - Computational Complexity Theory
- Connecting Proof Complexity, Circuit Complexity and Communication Complexity
  - Recent results "lift" lower bounds in weak complexity measures (related to proof complexity) to lower bounds in stronger complexity measures like communication complexity (related to circuit complexity).
  - Improve and extend these results and prove similar results in other settings.
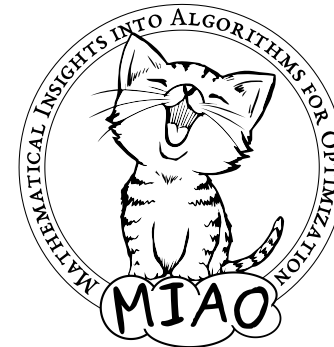
Juan Viguera Diez

juanvigueradiez @astrazeneca.com

- Computer Science Department, Chalmers University of Technology
- Industrial PhD Student at AstraZeneca
- Ola Engvist, Simon Olsson and Atanas Patronov
- MsC in Complex Adaptive Systems, Chalmers / BsC in Physics, University of Zaragoza.
- Research topics
    - Drug discovery
    - Machine Learning for natural sciences
- *Deep generative models of 3D conformations for molecular property prediction and design*
- *The ensemble of the 3D arrangement of atoms in a molecule affects drug design-relevant molecular properties. Machine Learning techniques have the potential to overcome limitations from traditional methods to sample equilibrium molecular conformations. If successful, the research performed in my PhD will accelerate efficiency and accuracy in drug discovery.*

Kamran Hosseini

hosseinikamran76@gmail.com

- Department of Computer and Information Science, Linköping
- Ahmed Rezine, Amir Aminifar, Zebo Peng, Petru Eles (IDA)
- Bachelors in Computer Science, University of Tehran (2021)
- Data Analyst, Charchoob
  - Crawling and analyzing data of housing market trades during the past ten years in Tehran and generating a report to distinguish the most relevant features that affect price with the corresponding impact factor.
- Research topics:
  - Formal Verification and Machine learning
  - AI
  - Computer science education
- Cheshmak: Object Detection and Classification Framework for Inventory Management in Retails
  - Designing and developing a deep learning framework using the transfer learning technique on a Residual Neural Network model in order to distinguish objects on a supermarket shelf.

Karthik Prakhya

- Ph.D student at Umeå University at the Department of Mathematics and Mathematical Statistics.
- Research Topic: Low-Rank Matrix Optimization and Semidefinite Programming via Operator Splitting
- Advisor: Alp Yurtsever and Co-Advisor: Jun Yu
- B.S. in Electrical Engineering and B.S. in Physics, Minor in Mathematics from University of Massachusetts, Amherst (GPA: 3.887/4.000)
- M.S. in Statistics and Operations Research from University of North Carolina Chapel Hill with specialization in Computational Finance
- Two undergraduate research experiences in computational nanoelectronics at NIST and at the University of Massachusetts Amherst
- Certificate in Quantitative Finance (CQF)
- Total of 8 years of industry experience in research and development in machine learning, deep learning, optimization and sensor systems
- Awards
- Nomination for Goldwater Scholarship (Undergraduate)
- Awarded Chang Freshman Award and Hasbrouck Scholarship
- Award in Physics for Academic Excellence (Undergraduate)
- Commonwealth Scholarship and John Abigail Adams Scholarship (Undergraduate)
- Dean's List honors for multiple semesters as undergraduate

Kenneth Lau
kwlau @kth.se

- Department of Intelligent Systems, KTH

- Industrial PhD Students at Elekta Instrument AB

- Supervisors:
  - Jana Tumova, David Broman, Peter Kimstrand

- MSc Medical Engineering, KTH (2018)

- Research topics
  - Safe reinforcement learning
  - Adaptive radiotherapy

- Safe reinforcement learning for real-time dose-based adaptive radiotherapy
  - Developing methods to automatically control the dose delivery of a radiotherapy treatment machine using reinforcement learning while keeping patients safe

Konstantin Malysh

konstantin.malysh @cs.lth.se

- Department of Computer Science, LTH, Lund University
- Supervisors: Per Runeson, Johan Linåker
- M.Sc. (Tech.), Tampere University (2020)
- Research topics:
  - Software Engineering
  - Design Science
  - Machine Learning
- B2B Data Sharing for Industry 4.0 Machine Learning
  - Design science, gaining generalized design knowledge by iterating over three phases:
    - Problem conceptualization
    - Solution design
    - Evaluation

Lena Strobl

lena.strobl@cs.umu.se

- Department of Computing Science, Umeå University
- **Supervisors**: Frank Drewes, Marco Kuhlmann
- MSc Computer Science with Speech and Language Processing, University of Sheffield (2021)

- **Work experience**
  - Student Research Assistant (~3 years)
  - Teaching Assistant (~4 years)
- **Research interests**
  - Neural networks
  - Natural language processing
  - (Efficient) algorithms
  - (Random) (data) structures
  - Extremal combinatorics and applications of combinatorics
- **Project "A Practical Theory of Computation for Modern Neural Network Architectures":**
  - Approximation of neural networks with finite state devices for theoretical analysis

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Linus Aronsson

linaro@chalmers.se

- Department of Computer Science and Engineering, Chalmers
- Morteza Haghir Chehreghani, Dag Wedelin
- Master of Science - MS, Data Sciecne and AI, Chalmers (2021)
- Bachelor of Science - BS, Computer Science, Chalmers (2019)
- Research topics
  - Active Learning
  - Deep Learning
  - Online Learning
- A Generic Active Learning Framework for Deep Models
  - Develop methods that can apply active learning to deep learning tasks.
  - Collecting and annotating data in many applications is expensive or constrained. Therefore, designing sophisticated methods for data annotation is a critical component of many real artificial intelligence (AI) systems.

Livia Qian

liviaq @kth.se

- Department of Speech, Music and Hearing, KTH
- Supervisors: Gabriel Skantze (KTH), Richard Johansson (Chalmers)
- Msc in Machine Learning at KTH, 2020
- Research topics
  - Representation learning
  - Natural language processing
  - Spoken dialog modeling
- Title: Representation learning for conversational AI
  - Modeling spoken conversation by taking into account factors such as speech acts, turn-taking, incremental processing and prosody
  - Applied to conversational systems, voice assistants and social robots

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KUNGL
TEKNISKA
HÖGSKOLAN
Intitutionen för Tal Musik Hörsel

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Maciej Wozniak
maciejwozniak94@gmail.com

- Division of Robotics, Perception and Learning at KTH
- PhD Student
- Supervisor: **Patric Jensfelt**
- Previous experience:
  - Research assistant at Miami University (Oxford, USA)
  - Mechanical engineer in various companies around Europe
- Research topics
  - Environment understanding
  - Computer vision
  - Robots Perception
- Thesis project
  - Environment mapping and understanding
  - Working on AR/VR applications
- Personal interests
  - Water and winter sports
  - Climbing
  - Fantasy and criminal literature

Marco Iannotta

marco.iannotta @oru.se

- Centre for Applied Autonomous Sensor Systems (AASS), Örebro University
- Industrial PhD Students at Suzuki Garphyttan
- Todor Stoyanov, Erik Schaffernicht, Johannes Andreas Stork, Bogdan Chetroiu
- M.Sc. in Computer Science, University of Bari (2020)
- Junior Software Developer (2017-2020)
- Research topics
  - Robotic Manipulation
  - Artificial Intelligence
  - Reinforcement Learning
- Achieving skill generalization with Reinforcement Learning
  - Developing methods for making robotic manipulators able to tackle new environmental conditions and unseen scenarios when performing complex tasks in dynamic and unpredictable environments.

Marcus Häggbom

haggbo @kth.se

- Department of Mathematics, KTH
- Industrial PhD Student at SEB
- Supervisors: Joakim Andén, Morten Karlsmark
- Engineering Physics, KTH 2019
- Worked two years as Fixed Income Quant at SEB
- Research topics:
  - Signal Processing
  - Generative Models
  - Financial Risk
- Explainable ML Methods for Data-Driven Risk Management
  - Using a cascade of wavelet transforms followed by non-linearities becomes a CNN with predetermined filters.
  - Application in financial time series, with limited size of training data and importance of model transparency.

Matteo Tadiello
tadiello @kth.se

- **Dependable Autonomous Systems**
- Computer Science, KTH
- Supervisor: Elena Troubitsyna
- Master Degree, Autonomous Systems (2020)
  EIT Digital
- Working Experience: CPO at FLOX AB
- Research topics:
  - Reinforcement Learning
  - Deep Learning
  - Safety and Reliability
- Safe Intelligent Autonomous Systems
  - Developing methods to verify and validate Autonomous Systems that use AI models
  - Training of safe and reliable systems using Deep Reinforcement Learning
  - Autonomous Driving

- Theoretical Computer Science

Matti Vahs
vahs @kth.se

- Division of Robotics, Perception and Learning, KTH
- PhD student under supervision of Jana Tumova
- M.Sc. In Theoretical Mechanical Engineering, Hamburg University of Technology (2021)

- Research topics
  - Planning Under Uncertainty
  - Mobile Robotics
  - Informative Path Planning

- Risk-aware Spatio-temporal Planning
  - Connections between path planning and formal methods
  - e.g. Safe planning under localization uncertainty

Max Nyberg Carlsson

max.nyberg_carlsson @control.lth.se

- Department of Automatic Control, Lund University
- Anton Cervin, Karl-Erik Årzén
- M.Sc.Eng., Engineering Physics (2021)
- Research topics
  - Control Theory
  - Cloud Computing
- Robust and Secure Control over the Cloud
  - Investigate how the cloud can be used to robustly improve control system performance

Mehrdad Farahani

m3hrdadfi @gmail.com

- Department of CSE, Chalmers
- Supervisors: Richard Johansson, Gabriel Skantze
- MSc in Computer Engineering - AI, Azad University of Tehran (IAU-TNB) (2018)
- Research topics
  - NLP
  - Representation Learning
- Representation learning for Conversational AI
  - Developing state-of-the-art AI technologies and methods for conversational and interactive systems
  - Investigating the possibility of learning general representations of spoken conversation in a self-supervised manner

Nancy Xu
nancyx @kth.se

- EECS, KTH
- Michalis Vazirgiannis and Henrik Boström
- MSc Machine Learning, KTH 2021
- Research topics
  - Graph Neural Networks
  - Computer Vision
  - Time Series
- Deep Learning methods and foundations
  - Applying Graph Neural Networks (GNNs) to time series and computer vision problems
  - Develop methods of representing and processing time series and image data as graphs
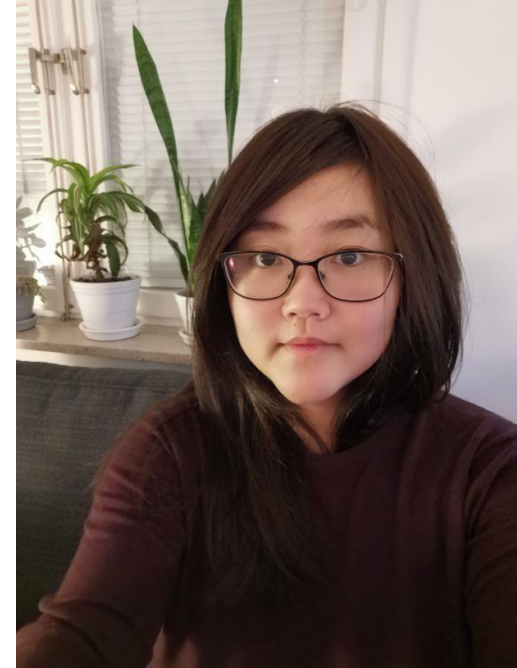
Olle Torstensson

olle.torstensson@liu.se

- Dept. of Computer and Information Science, Linköping University
- Supervisors
  - Marco Kuhlmann (primary, LiU)
  - Frank Drewes (UmU)
- M.Sc. Computer Science, Uppsala University (2021)
- Research topics
  - Logic in AI/ML
  - Natural Language Processing (NLP)
- A Practical Theory of Computation for Modern Neural Network Architectures
  - Developing methods and results relating to recent/future neural network architectures, by way of finite-state devices
  - Applications in NLP
  - Collaborator: Lena Strobl (PhD Student, UmU)

Oscar Stenhammar
ostenh @kth.se

- Network and System Engineering, KTH
- Ericsson AB
- Carlo Fischione and Gabor Fodor
- M.Sc. in Engineering Physics, Uppsala University (2021)
- Research topics
    - Machine learning
    - Digital communication
    - Wireless networks
- Predictive Quality of Service Management for Transport Services
    - Predicting network capacity, coverage, and the quality of service along streets, for network operators to deploy robust mobile networks for the transport sector.

Paul Höft
paul.hoft @liu.se

- Department of Computer Science (IDA), RLPLAB, Linköping
- Supervisors: Jendrik Seipp, Hector Geffner
- Bachelor, Master (CS), University of Basel (2019,2021)
- Research topics
  - Optimal Classical Planning
  - Reinforcement Learning
- Learning Dynamic Algorithms for Automated Planning
  - Learning admissible heuristics
  - Explore dynamic versions of classical planning algorithms
  - Development of a dynamic domain-independent planner

Peng Kuang

peng.kuang @cs.lth.se

- PhD in Computer Science, 2021-2025
- Software Development and Environments (SDE), Department of Computer Science, Lund University
- Supervisors: Emma Söderberg, Martin Höst, Diederick C Niehorster
- [Background]
  - Master of Information Technology, University of Melbourne (2019)
  - Business System Developer, IT Dept., Guangdong Technion-Israel Institute of Technology (2020)
- Research topics
  - Data-driven program analysis
  - Adaptive developer tools
  - Eye-tracking, AI & machine learning
- How eye-tracking and ML can be applied in program analysis to aid its usefulness to developers
  - Apply a data-driven approach to tackle the issues with current program analysis tools, namely, false positives, flooding reports, understandability & usability
  - Explore how ML and eye-tracking can be integrated into these tools to make them adaptive and intelligent

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UNIVERSITY

WASP | WALLENBERG AI, AUTONOMOUS SYSTEMS AND SOFTWARE PROGRAM
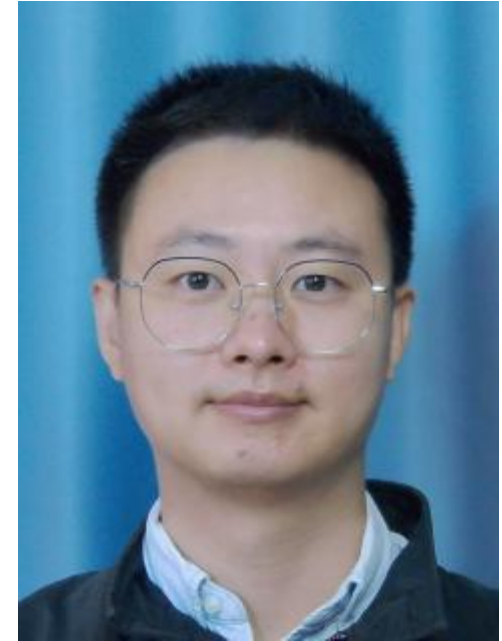
Prabhat Kumar Jha

000prabhat000@gmail.com

- Computer Science and Engineering, Chalmers
- Supervisors: Nir Piterman and Sahar Mohajerani

- MSc.(Computer and Systems Science) TIFR (2021)
- MSc Thesis: Affine Subspace Reachability Problem
- BSc.(H) (Mathematics and Computer Science) CMI (2018)

- Research topics
  - Verification, Synthesis and Planning
  - Logics and Models
  - Path Finding Algorithms
  - Games on Graphs

- Combining Path Finding Algorithms in Temporal Reactive Synthesis
  - Games as Cartesian Product of Simpler Games
  - Combining Game Solving and Path Finding

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Rajmund Nagy
rajmundn@kth.se

- Division of Speech, Music and Hearing, KTH
- Supervised by Gustav Eje Henter and Jonas Beskow
- Background in computer science and machine learning
- Research interests:
  - Deep generative models
    - Normalising flows, GANs, VAEs...
  - Perceptual effects of different architectures and loss functions
  - Geometric deep learning
- Thesis title: Deep generative models for controllable motion synthesis
  - Previously worked on Speech-driven gesture generation with deep learning

Romuald Esdras Wandji

rewandji@cs.umu.se

- *AI and Database Management.*
- Department of Computing Science, Umeå University.
- Supervisor(s): Diego Calvanese.
- Master in Computer Engineering, Cyprus International University (2020).
- Research topics
  - AI
  - Data integration.
- **Thesis title:** Ontology-based update and evolution in Virtual Knowledge Graph.
  - Update and dynamically evolve data sources through operations that are performed at the ontology level.

Sabine Houy
sabineh @cs.umu.se

- Department of Computer Science, Umeå
- PhD in Computer Science, Umeå University (since October 2021)
- Supervisor: Alexandre Bartel
- M.Sc. In Digital Forensics, Halmstad University (2021)
- Research topics
  - Android Root Exploits
  - (Embedded) JVMs
  - Reverse Engineering
- Android Vulnerabilities
  - Focuses on the characteristics specific to rooting malware
  - Automate reverse engineering steps

Samuel Blad

samuel.blad @oru.se

- Department of Computer Science, Örebro University
- Industrial PhD Student at Nexer
- Supervisors: Amy Loutfi & Martin Längkvist
- Industrial Supervisor: David Thorzén
- Software Engineer & Data Scientist (2012-present)
- BSc Software Engineering, Technion, Israel (2008 -2012)
- Research topics
  - Reinforcement Learning
  - Exploration methods, quantifying "learning"
  - Multi agent cooperative learning
- Methodic and scalable exploration
  - Devise agents that maximize *informative* exploration
  - Exploit knowledge gained by agents of different kinds

Shih-Min Yang
shih-min.yang @oru.se

- AASS, Örebro University

- Supervisors
  - Todor Stoyanov, Örebro Universitet
  - Achim Lilienthal, Örebro Universitet
  - Martin Magnusson, Örebro Universitet

- Doctoral student (first year)

- Work experiences
  - Machine learning engineer, VoiceTube, Taiwan
  - Research Assistant, National Taiwan Normal University, Taiwan

- Research topics
  - Visual perception and robotic manipulation
  - Deep learning
  - Reinforcement learning

- Current research
  - Robotic manipulation by exploiting non-prehensile manipulation and environmental constraints in a high dimensional and continuous action space.

Simon Kristoffersson Lind

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- Department of Computer Science,
- Lund University LTH
- Volker Krüger, Luigi Nardi
- MSc Computer Science and Engineering, Lund University LTH (2021)
- Research topics
  - Computer Vision for Robotics
- "Situation Aware Perception for Safe Autonomous Robotics Systems"
  - This project aims to make computer vision more robust by introducing Situation Parameters and Confidence.

Suleman Khan
Suleman.khan @liu.se

- ***Aviation Security and AI***
- Department of Computer Science, Linköping
- PhD Student (2021)
- Andrei Gurtov (Supervisor)
- PhD in Computer Science
- NCCS, Pakistan (2 Years)
- Research topics:
  - Aviation Security
  - Deep Learning
  - Machine Learning
- Security challenges in Aviation Industry
  - Intrusion detection System In Aviation Communication Systems using AI.
  - Making Air-Air and Air-ground Communication Secure using Cryptography.

Supratim Manna

supratim @kth.se

- Division of Network and Systems Engineering, School of Electrical Engineering and Computer Science, KTH Royal Institute of Technology
- Carlo Fischione
- PhD, KTH Royal Institute of Technology
- Primetals Technologies, India, (2016-17)
- Research topics
  - AI
  - ML over Networks
  - Video prediction
- Online face prediction based on audio and its application to musical performance
  - Developing method for real time lip prediction and head movement prediction from audio over the networks.
  - Apply it to online musical performance.

Tianyi Zhou
tzho@kth.se

- PhD Student
- Department of Theoretical Computer Science, KTH
- Supervisor(s): Aristides Gionis, Philipp Haller
- M.Phil , East China Normal University (2021)
- Research topics
  - Online media data mining
  - Machine learning
- Rebound: An Algorithmic Framework for Reducing Bias and Polarization in Online Media
  - Developing theoretical foundations and a concrete set of algorithmic techniques to address deficiencies in online media
  - Addressing the issues of reducing bias and polarization, breaking information silos, and creating awareness of users to explore alternative viewpoints

Tobias Karlsson

tobiaka @chalmers.se

- Data Science & AI, Chalmers
- Simon Olsson
- MSc Data Science & AI, Chalmers
- Research topics
  - Protein sequence models
  - Protein-protein interaction models
  - Design of antibodies
- Digital Affinity Maturation
  - A body being exposed to an antigen enters an iterative process of developing antibodies against it. This process is called affinity maturation. The idea for my thesis project is to create a computational framework to mimic this process.

Yansong Huang

yansong.huang@chalmers.se

- Vehicle Engineering and Autonomous Systems at Chalmers
- Volvo Car Corporation
- Supervisors: Bengt Jacobson, Brandin Tobias
- Master of science, Chalmers (2018)
- Design engineer, suspension system & architecture at Volvo car
- Research topics
  - Suspension Kinematics & Compliance
  - AI
  - Mechanical design
- AI supported road vehicle suspension design
  - Combining model-based knowledge of the connection between requirements and design parameters with modern Artificial Intelligence (AI) methods
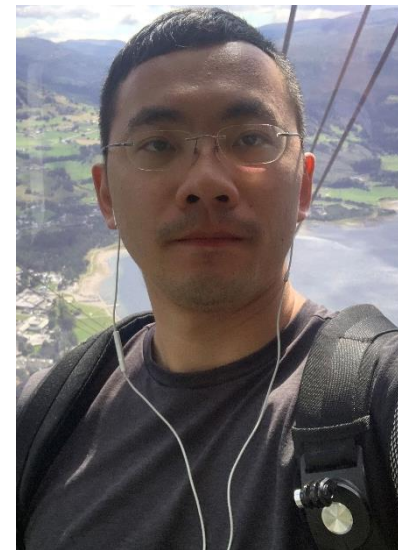
Yasmin Tousinejad

Yasmin.tousinejad @math.uu.se

- Mathematics, Uppsala
- Vera Koponen, Raazesh Sainudiin
- M.Sc. , Amirkabir University (2019)
- Research topics:
  - Model Theory
  - AI
  - Statistics
- A model theoretic approach to learning and inference in statistical relational AI
  - Investigating computationally efficient methods of learning probabilistic graphical models and using them for inference, by means of studying convergence phenomena in finite model theory.

Yi Yang

yiya @kth.se

- Robotics, Perception and Learning Lab, EECS, KTH
- 2nd-year industrial PhD Student at Scania
- Supervised by John Folkesson, Christian Pek, Jana Tumova, Nazre Batool
- M.S in Vehicle Engineering, KTH (2020) & B.S in Mechanical Engineering, Shanghai Jiao Tong University (2017)
- Worked as Software Engineer, Scania R&D Autonomous Vehicle & Research Engineer, KTH (2019-2020)
- Research topics
  - Autonomous driving
  - Behavior / motion prediction
  - Deep learning
- Proactive context-aware behavior prediction & reasoning about **occluded** objects for autonomous driving

Yushan Zhang

yushan.zhang @liu.se

- Department of Systems Engineering, Linköping University
- PhD Students
- Michael Felsberg, Maria Magnusson
- Master's Degree, Beijing Institute of Technology (2021)
- Research topics
  - Computer Vision
- CoDestNet: Constraint Deep Spatio-Temporal Networks
  - Address the problem of designing deep networks that learn to solve spatio-temporal tasks.
  - Transparency and interpretability with respect to spatio-temporal modeling and constraints.
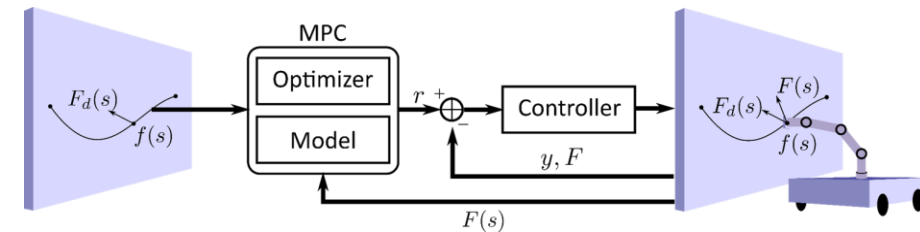
Zhanyu Tuo

- Linköping University

Zheng Jia

zheng.jia @control.lth.se

- Department of Automatic Control, Lund University
- Supervisors: A. Robertsson, B. Olofsson, L. Nielsen (LiU)
- MSc in Robotics, ETH Zürich (2017)
- Research topics
  - Motion planning
  - Robotics
  - Force control
- Autonomous Force-Aware Swift Motion Control (ELLIIT)
  - Methods to online generate nominal "**interaction trajectories**" where **path, velocity, and forces** are considered simultaneously.
  - **Feedback control loops** for **adjusting the traversal** along the desired paths, assuming force sensing on the robot.
  - Robust and resilient methods for **synchronizing the control of an autonomous mobile platform with a manipulator** when moving along a desired path under **force interactions** with the environment.