



employment

September 2019 - present
Johannes Kepler University

www.jku.at/en/institute-for-machine-learning

Position: Research Scientist

Expertise: Reinforcement Learning / Deep Learning

Research and development of algorithms for agent control in complex RL environments. Pedestrian intention recognition for autonomous driving. Applying regularization theory for domain adaptation.

October 2016 – August 2019

CELUM GmbH

www.celum.com

Position: Data Scientist

Expertise: Object-in-Context Recognition with Deep Neural Networks

Image classification and object recognition for similarity search of recommender systems. Integration of image based search in digital asset management system.

May 2018 – December 2018

Imagine Kara LLC (Delaware USA)

www.imaginekara.com

Position: CEO

Expertise: Fintech Development - Crypto Currency and Distributed AI-Computation
Partnership with Apollon to create a cloud-based masternode solution for automated coin hosting. Involved in core development, testing and deployment processes.

August 2016 – September 2016

Hagenberg Software GmbH (acquired by S&T-Technologies)

www.snt-technologies.com

Position: Mobile App Developer

Project: Cross-Platform App Development using Apache Cordova

Development and maintenance of a cross-platform application for supply chain management. Operated as a full-stack developer.

April 2016 – June 2016

Siemens Corporate Research

www.usa.siemens.com

Department: CT (Princeton USA)

Position: Software Developer Internship

Expertise: AI enabled Cross-Platform App Development using Xamarin

Development of cross-platform application for handwritten character recognition based on Support Vector Machines and Neural Networks. Elaborate use of Android NDK and Interop Services with C++ interfaces.

publications

- XAI and Strategy Extraction via Reward Redistribution (In progress, Springer Book Chapter)
- The balancing principle for parameter choice in distance-regularized domain adaptation (Conference paper under review at NeurIPS 2021) [collab. with SCCH]
- Align-RUDDER: Learning From Few Demonstrations by Reward Redistribution (Conference paper under review at NeurIPS 2021) [collab. with EnliteAI] www.arxiv.org/abs/2009.14108
- Labeling for Pedestrian Intention Recognition, Poster AICON 2019 [collab. with ZF Friedrichshafen]
- Overcoming Catastrophic Forgetting with Context-Dependent Activations, Master Thesis www.epub.jku.at/obvulihs/content/titleinfo/4049568
- Quantifizierung leichter mentaler Erregung durch korrelative Veränderungen von HK- und metabolischen Parametern anhand einer 3D-Gefahrensimulatio, Nieren- und Hochdruckkrankheiten, Jahrgang 44 - Oktober (457 - 461) [collab. with Austrian Armed Forces] www.bit.ly/2JghSDO

skills

Java	90%
C# / .NET	80%
C / C++	40%
Python	90%
Reinforcement Learning	90%
Machine Learning / Deep Learning	90%
R / Mathematica	30%

XML / XPath / XQuery	70%
SQL/NoSQL	70%
JavaScript / TypeScript	80%
Unity / Unreal Engine	20%
HTML5 / PHP / jQuery / CSS3 / LESS	70%
Pytorch / TensorFlow	70%
Google Cloud / Azure	40%

Software Analytics	80%
Software Architecture	90%
Product Management	80%
Docker	70%
iOS / Android / Xamarin / Cordova	70%
LaTeX	70%
Linux / Mac / Windows	100%



December 2010 – March 2016

Novotech Elektronik GmbH (acquired by S&T-Technologies)

www.snt-technologies.com

Department: Banking Automation

Position: Software Architect and Product Manager

Expertise: Software development for self-service coin counting devices

Lead developer and product manager responsible for a four person team to design, develop and deploy software solution for coin counting devices. Main focus on implementing SOAP / WebServices for interop services between Java and C#.NET. Responsible for coordinating and training international support and service teams.

education

October 2019 – present

Johannes Kepler University Linz

Expected Degree: PhD in Machine Learning

www.bit.ly/2QKLQ7b

Expertise: Deep Reinforcement Learning, Multi-Task Learning, Continual Learning, Overcoming Catastrophic Forgetting in Deep Reinforcement Learning agents. Development of probabilistic models for intention prediction of pedestrians for autonomous driving. Applied Regularization Theory for Domain Adaptation. Modern Hopfield Networks, Transformers, Explainable AI.

October 2017 – 2019

Johannes Kepler University Linz

Earned Degree: Master's Degree in Computer Science - Data Science

www.informatik.jku.at/teaching/master/DS/index.html

Specialization: Deep Neural Network / Machine Learning

Exchange Program: WS 2018/19, National Taiwan University of Applied Science and Technology

Major courses focused on Artificial Intelligence, Computer Vision, Machine Learning (DL, SVM, Random Forest, etc.), heuristics (Genetic Programming) and Data Warehousing.

projects

- Lighter: Dependency Injection Framework for PyTorch
- Demo Project: Photo Management App for iOS incl. Web App
- XAP: Masternode backend development
- Operation Phrike: Simulation software for virtual reality stress test analysis using Oculus Rift, Myo, Unreal Game-Engine and C# (WPF, Entity Framework)
- XCompiler: Cross-Language compiler, mapping different programming languages to the .NET platform using C#, Coco/R and Roslyn
- MER: Handwritten mathematical equation recognition application using Xamarin, C#, C++, Python, Android NDK and Machine Learning (Support Vector Machine, Recurrent Neural Networks)

certifications

2017 - Udacity Nano Degree

Deep Learning Foundation

www.wp.me/a7SrVj-1bY

2011 - Oracle Certified Professional,

Java SE 6 Programmer

CIIT GmbH

www.dinu.at/data/certifications/021133.pdf

2010 - MCITP Administrator

bit group GmbH

www.dinu.at/data/certifications/MicrosoftZertifikat.pdf

skills

Java	90%	XML / XPath / XQuery	70%	Software Analytics	80%
C# / .NET	80%	SQL/NoSQL	70%	Software Architecture	90%
C / C++	40%	JavaScript / TypeScript	80%	Product Management	80%
Python	90%	Unity / Unreal Engine	20%	Docker	70%
Reinforcement Learning	90%	HTML5 / PHP / jQuery / CSS3 / LESS	70%	iOS / Android / Xamarin / Cordova	70%
Machine Learning / Deep Learning	90%	Pytorch / TensorFlow	70%	LaTeX	70%
R / Mathematica	30%	Google Cloud / Azure	40%	Linux / Mac / Windows	100%

*Scales are estimated based on relative time investment on projects or work related experiences



October 2013 – September 2016

University of Applied Sciences Upper-Austria

Earned Degree: Bachelor of Science in Software Engineering

www.bit.ly/2UAX4ft

Specialization: Software Development and Architecture

Major courses focused on object-oriented programming, functional programming and component-based architectures / services. Including advanced algorithmics, test and model driven development, software design principles and usability engineering. Programming and Scripting Languages: Pascal, Java, C, C++, C#, JavaScript, SQL, XML

September 2012 – July 2013

University of Applied Sciences Upper-Austria

Earned Degree: G.E.D.

www.bit.ly/2UgVuRa

November 2010

WIFI

Passed Exam: Apprenticeship Certification

www.wifi.at

September 2005 – July 2007

HAK Auhof

Attended: Economic-focused secondary school

www.hakauhof.at/index.php/hak/hakit

September 2002 – July 2005

HTL Paul Hahn

Attended: Engineering-focused secondary school

www.litec.ac.at/fachrichtungen/mechatronik/htl-tagesschule

hobbies

- Soccer, Tennis, Ping Pong, Cycling, Running, Soft Ball, Jiu-Jitsu, Karate, Aikido
- Fishing
- Gaming (PlayStation, Xbox, Steam)
- Sightseeing / Traveling
- Photographing & Filming
- Reading

interests

- Writing Blog Posts (my Website and Medium)
- App Development (iOS and Android)
- Raspberry Pi - Bots for Twitter, Discord and Reddit
- Web Scraper - Selenium over Tor Network Tunneling (to get a PlayStation 5, and yes, I got one!)
- Game Development - Unreal Engine 4 VR simulation and Unity 4 Game
- Multimedia Editing using Adobe Photoshop, InDesign, Premiere and After Effects
- Crypto Currency Masternode Development
- Popular Science Research on Artificial General Intelligence and Quantum Mechanics

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