résumé

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Research Scientist

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employment

October 2021 - present
Dynatrace, Inc.
Position: Senior Research Scientist (Linz, AT)
Expertise: Reinforcement Learning / Deep Learning / Natural Language Processing
Research and development of algorithms for large-scale cloud-based high-performance computing platforms, with focus on log analytics, anomaly detection, real-time root cause analysis and recommendation systems. Publications at top-tier machine learning conferences (NeurIPS, ICML, CoLLAs or similar).

September 2019 - September 2021
Johannes Kepler University
Position: Research Scientist (Linz, AT)
Expertise: Reinforcement Learning / Deep Learning / ML
Research and development of algorithms with focus on learning agents to navigate in complex hierarchical reinforcement learning environments, and continual learning settings. Furthermore, developing methods for unsupervised domain adaptation based on regularization theory. Applying methods for pedestrian intention recognition for autonomous driving. Publications at top-tier machine learning conferences (NeurIPS, ICML, CoLLAs or similar).

October 2016 – August 2019
CELUM GmbH
Position: Data Scientist (Linz, AT)
Expertise: Object-in-Context Recognition with Deep Neural Networks
Image classification and object recognition for similarity search in recommender systems. Integration of image-based search in digital asset management system.

May 2018 – December 2018
Imagine Kara LLC
Position: CEO / Software Architect (Delaware USA)
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)
Position: Mobile App Developer (Hagenberg, AT)
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 to create a REST-based application.

publications

Ensemble Learning for Domain Adaptation by Importance Weighted Least Squares (Conference paper, under review NeurIPS 2022)

A Dataset Perspective on Offline Reinforcement Learning (Conference paper CoLLAs 2022)

Reactive Exploration to Cope with Non-Stationarity in Lifelong Reinforcement Learning (Conference paper CoLLAs 2022)

Align-RUDDER: Learning From Few Demonstrations by Reward Redistribution (Conference paper ICML 2022) [Collab. with EnliteAI]

The balancing principle for parameter choice in distance-regularized domain adaptation (Conference paper at NeurIPS 2021) [Collab. with SCCH]

XAI and Strategy Extraction via Reward Redistribution (Springer Book Chapter 2020)

Labeling for Pedestrian Intention Recognition (Poster AICON 2019) [Collab. with ZF Friedrichshafen]

Overcoming Catastrophic Forgetting with Context-Dependent Activations (Master Thesis, 2019)

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 / Anaconda	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%	AWS / Google Cloud / Azure	40%	Linux / Mac / Windows	100%

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

April 2016 – June 2016
Siemens Corporate Research
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. NDK and Interop Services with C++ interfaces.

December 2010 – March 2016
Novotech Elektronik GmbH (acquired by S&T-Technologies)
Department: Banking Automation (Gallneukirchen, AT)
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 calls 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 (Linz, AT)
Expertise: 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.

October 2017 – 2019
Johannes Kepler University Linz
Degree: Master's Degree Computer Science - Data Science (Linz, AT)
Specialization: Deep Neural Network / Machine Learning (GPA 3.9 / 4.0)
Exchange Program: National Taiwan University of Applied Science and Technology (1 Semester, 2018/19)
Major courses: Artificial Intelligence, Reinforcement Learning, Computer Vision, Supervised Machine Learning (Deep Learning, Support Vector Machine, Random Forest, etc.), Unsupervised Machine Learning (Autoencoders, K-Means, etc.) Heuristics (Genetic Programming, Particle Swarm Optimization, etc.) and Data Warehousing.

certifications

2017 - Udacity Nano Degree
Deep Learning Foundation

2011 - Oracle Certified Professional
Java SE 6 Programmer
CIIT GmbH

2010 - Microsoft Certified IT Professional Administrator
bit group GmbH

projects

Lighter: Dependency Injection Framework for PyTorch

Demo Swift Project: Photo Management App for iOS incl. Web App

Apollon 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)

XCompilR: Cross-Language compiler, mapping different programming languages to the .NET platform using C#, Coco/R and Roslyn

Mathematical Equation Recognition MER: Handwritten mathematical equation recognition application using Xamarin, Android NDK and Machine Learning (SVM, RNN)

skills

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October 2013 – September 2016
University of Applied Sciences Upper-Austria
Degree: Bachelor of Science in Software Engineering (Hagenberg, AT)
Specialization: Software Development and Architecture (GPA 3.7 / 4.0)
Major courses: Focus 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. (Linz, AT)

November 2010
WIFI
Earned Degree: Apprenticeship Certification
Information Technology (IT) Technician

September 2005 – July 2007
HAK Auhof
Attended: Economic-focused secondary school

September 2002 – July 2005
HTL Paul Hahn
Attended: Engineering-focused secondary school

interests

- Writing Blog Posts (Own Website and Medium)
- Video Editing (YouTube Channel)
- Raspberry Pi - Discord Web-Apps
- Mobile App Development - Swift & Android
- Bot Development - Selenium with Tor Network Tunneling
- Game Development - Unreal Engine and Unity Game
- Web Design - Photoshop, InDesign, Premiere and After Effects
- Quantum Mechanics

hobbies

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

skills

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