

Benjamin Alt

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benjaminalt

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RELEVANT EXPERIENCE

AICOR Institute for Artificial Intelligence, University of Bremen

Bremen, Germany

Technical Director

Apr 2025 - today

- Develop an ecosystem for open-source cognitive robotics
- Establish a deep and broad network of research and industry partners
- Acquire funding for research and technology transfer
- Coordinate technology transfer activities

ArtiMinds Robotics

Karlsruhe, Germany

Senior Team Lead Research

Oct 2024 - Mar 2025

- Led a team of 7 full-time and student researchers
- Coordinated AI technology transfer in customer projects and commercial product development
- Established and expanding long-term research partnerships with >20 academic institutions and >15 industry partners
- Led 8 publicly funded research projects on cognitive robotics with >2M € of grant volume
- Acquired >800k € of grant volume for 2 publicly funded research projects on advanced industrial robotics

Senior Research Scientist

Jan 2023 - Sep 2024

- Researched and published on scalable, interpretable artificial intelligence for industrial robots (8 conference papers)
- Acquired and realized 5 publicly funded research projects in excess of 1.4M € of grant volume
- Conducted in-house consulting on AI methods, applications and technology transfer
- Mentored and supervised 14 graduate and undergraduate students

Research Scientist

Oct 2019 - Dec 2022

- Researched and published on semi-symbolic robot program inference with deep neural networks (5 conference papers, 2 book chapters)
- Implemented and patented a commercial AI solution for the data-driven optimization of industrial production processes
- Acquired and realized 6 publicly funded research projects in excess of 1.5M € of grant volume
- Mentored and supervised 16 graduate and undergraduate students

EDUCATION

University of Bremen

Bremen, Germany

Ph.D. Computer Science *cum laude*

2020 - 2025

- Dissertation: *Neurosymbolic Robot Programming - A Framework for AI-Enabled Programming of Robot Manipulation Tasks* ([PDF](#))
- Advisor: Prof. Michael Beetz, AICOR Institute for Artificial Intelligence

Karlsruhe Institute of Technology

Karlsruhe, Germany

M.Sc. Computer Science *with distinction*

2017 - 2019

- Thesis: *Automatic Parameterization of Robot Programs via Learning of Neural Program Representations*
- Areas of Specialization: Robotics and Automation; Anthropomatics and Cognitive Systems
- Merit scholarship of the German Acad. Scholarship Foundation (Studienstiftung des deutschen Volkes)

B.Sc. Computer Science

2015 - 2017

- Thesis: *Machine Learning for Pose Optimization: An Integrated Framework for the Development and Monitoring of Adaptive Robot Programs*

Institut d'Études Politiques de Paris (SciencesPo)

Reims, France

B.A. Political Science *summa cum laude*

2012 - 2015

Reims, France

- Areas of Specialization: Law, History, Economics
- 2014-2015 at Princeton University with a focus on Mathematics & Computer Science

SELECTED PUBLICATIONS

2 book chapters, 1 journal article (peer reviewed), 15 conference papers (all peer reviewed), 2 workshop publications.
Full list of publications: benjaminalt.github.io/publications

SKILLS

Robotics	Task and motion planning, force control, 3D visual perception, robot programming, human-robot interaction, model predictive control, manipulation of deformable objects
Machine learning	Deep learning, imitation learning, learning from demonstration, differentiable programming, model-based optimization, interpretability, informed machine learning
Research management	Grant acquisition, science communication, stakeholder management, technology transfer, strategic planning
Leadership	Team leadership, mentoring, talent acquisition
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Programming languages	Python (8 years of professional experience), C++ (3 years), Prolog (1 year), Java
Development tools	Git, DVC, Jira, CMake, Jenkins CI
Frameworks	PyTorch, NumPy, Keras, ROS, Qt

Karlsruhe, June 1, 2025

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