Tassilo Neubauer

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Education

Karlsruhe Institute of Technology Karlsruhe, Germany
B.S. Computer Science, Grade Average 3.1 on a scale from 5 (lowest) to 1 (highest). October 2020–December 2023

– *Thesis:* Machine Learning-based Root Cause Analysis for Intelligent Production.

Courses

- **Math:** Linear Algebra I & II, Real Analysis I & II, Probability Theory, Numerical Math for Computer Scientists
- **Computer Science:** Programming (Java), Software Engineering (Java), Programming Paradigms, Databases, Cognitive Systems, Theory of Computer Science I & II, Algorithms I & II, Advanced Algorithmic Programming, Operating Systems, Computer Networks among others
- **Physics:** Experimental Physics I & II, Modern Physics for Computer Scientists

Skills

Proficiency rated on a scale of 1 (basic) to 3 (high).

- **Programming Languages:** Python (3), Java (2), C++ (2), Bash (2), C (1), Nix (1), SQL (1), Haskell (1)
- **Software and Libraries:** Emacs (3), Numpy (2), Pandas (2), Pytorch (2), Latex (1), Make (1)
- **Operating Systems:** Linux (3), Windows (1)
- **Languages:** German (3 - native), English (3), Japanese (1), French (1)

Experience

- **Freelance Software Developer** Online, January 2024–Current
  Working on a data scraping job with Exosome Consulting.
- **Stanford Existential Risk Initiative** Online, November 2022–December 2022
  Participated in John Wentworth's agent foundations training program. Conducted numerous exercises in conceptual research.
- **Forschungszentrum Informatik, Karlsruhe, Germany** March 2022–December 2022
  Research assistant focusing on generating visualization recommendations using an evolutionary algorithm combined with random forests and simple feedforward neural nets, based on artificial human feedback.
- **Karlsruhe Institute of Technology, Karlsruhe, Germany** April 2022–September 2022
  Collaborated with a team of four students to develop a C++ GUI plugin for the ArmarX distributed robot framework. A standout contribution of mine was the design and implementation of a foldable timeline that visually represented the robot's hierarchically structured memory over time, leveraging Qt5 for the basic components.
- **Karlsruhe Institute of Technology, Karlsruhe, Germany** September 2021–December 2021
  Research assistant at the Chair for Political Economy. Sped up time to run online experiments for the chair from weeks to hours. I set up hosting of the experiments on Heroku and recruitment of participants through Prolific.

Projects

- Predicting the S&P 500 (Python, Numpy, Pandas), by sampling from past market data. I used this to win money on the Almanis prediction market. This method worked better for me than just eyeballing trends.
- fatebook.el. An Emacs plugin to create and upload predictions to Fatebook. I created the tool for my own use.