

Jonathan Dyer

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Carnegie Mellon University alum with 4+ years of experience in software engineering and graduate studies in machine learning. Enjoys diving into complex systems and analyzing difficult problems. Experience and interest in distributed systems, machine learning, and technical AI alignment.

Skills

Python, Perl, JavaScript, SQL, Java, Git, Docker, AWS, Jenkins, Linux, bash, Scrum/Kanban, TensorFlow, Scikit-learn, machine learning, neural networks, deep learning, NLP, NumPy, Pandas, data visualization, artificial intelligence, AI safety & alignment

Employment

- Tomorrow University of Applied Sciences, Remote | **ML Course Design and Research** May 2023 - Present
- Designed and authored **data science and machine learning** course materials for an edtech startup
 - Built **automated assessment pipelines** that integrated generative LLMs
 - Led class sessions and taught advanced techniques for data structures, algorithms, and AI
- Grant Street Group, Remote | **Full Stack Software Engineer** Jan 2020 - Dec 2022
- Developed efficient **APIs** and **microservices** to handle thousands of transactions per day
 - Consolidated multiple workflows into a user-friendly tool, significantly improving productivity
 - Upgraded legacy application frontend to **modern Javascript** frameworks including **Vue.js**
 - Mentored** new developers and team members during onboarding and project ramp-up
- Carnegie Mellon University, Pittsburgh, PA | **Graduate Teaching Assistant** Jan 2019 - Dec 2019
- Object Oriented Programming for Managers*
 - Introduction to Programming with Python*
- MIO Partners, New York City, NY | **DevOps / InfoSec Intern** Jun 2019 - Aug 2019
- Designed and built a custom suite of 10+ intelligence tools for the information security team
 - Created pipelines for standardizing deployment across application teams, saving hours per week
- UPMC Enterprises, Pittsburgh, PA | **Software Engineering Intern** Jun 2018 - Aug 2018
- Implemented full-stack solutions to enhance reporting capabilities for existing clients
 - Attained 100% test coverage for all code and actively contributed as a member of an Agile software development team

Education

Carnegie Mellon University | Heinz College grad. Dec 2019
Master of Information Systems Management

A blend of technical and leadership skills, with a focus on machine learning, data science and big data, distributed systems, programming and system design, and disruptive technologies. Graduated with highest honors.

University of Pittsburgh grad. Apr 2018
B.S. Mathematics, B.S. Computer Science, *GPA: 3.92/4.0 (summa cum laude)*

- Culver Award, 2018 — outstanding performance by a student of mathematics
- Laura LaFave and Peter Hallet endowment, 2017 — exceptional performance in mathematics
- Chancellor's Scholarship, 2012 — highest academic award given to new students

Academic Projects & Research

CMU Capstone — Highmark

Capstone Project @ Carnegie Mellon University — Pittsburgh, PA

- Analyzed healthcare cost and outcome data including 1000s of **complex data points**
- Built a **supervised learning model** to evaluate healthcare outcomes in different populations and regions
- Presented findings and benchmarks to executives at Highmark, changing program trajectory

Cognitive Systems Group

Universität Bremen — Bremen, Germany

- Conducted research on computational approximation of convergent human creativity tasks
- Designed and implemented combinatorial algorithms to enhance computational models
- Developed hypotheses and successfully published multiple papers