

Phillip Sievers

phillip.sievers@duke.edu |  [phillip-sievers](#) |  Phillip Sievers

EDUCATION

Duke University, Trinity School of Arts and Sciences

August 2025 – December 2025 | Durham, NC

Direct Exchange Semester

- Competitive Full Ride Scholarship recipient for academic excellence
- GPA: 4.0/4.0
- Relevant Coursework includes Elements of Machine Learning, Computer Security, Delivering Software

Freie Universität Berlin

October 2023 – August 2026 | Berlin, Germany

Bachelor of Science in Computer Science

- Relevant Coursework includes Algorithms and Data structures, Linear Algebra, Software Engineering, Statistics, Parallel and distributed Systems, Calculus, Theoretical Computer Science, Database systems

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, SQL, PHP, C, Bash, Java, Scala | **Web:** HTML/CSS

Frameworks:

- Backend – FastAPI, Node.js, Symfony
- Frontend – React, Next.js, Remix
- Testing – Pytest, Playwright

Libraries:

- Machine Learning – PyTorch, scikit-learn, NumPy, pandas
- Web Development – Tailwind CSS, Axios, Pydantic, Alembic, SQLAlchemy

Databases: PostgreSQL, Redis, Supabase

Developer Tools: Git (GitHub, GitLab, Bitbucket), Docker, Docker Compose, Jira, Confluence, GitLab CI/CD, Jenkins

PROFESSIONAL EXPERIENCE

Duke Marine Lab Team Lead Software Engineer

August 2025 – Present | Durham, NC

- Leading a small team of students, building a web application that allows researchers to generate, rate and save feature perfect images of whales to train image whale detection models
- Engineering a fully containerized full-stack web app (JavaScript/Python) using Docker compose with a React frontend and FastAPI backend, design choices and software architecture were commended by industry veterans
- Fine tuning models using Huggingface diffusers to improve generation quality and rating synthetic images of rare whales using CLIP models
- Designed a full deployment pipeline using GitLab CI/CD, recognized as “professional, industry standard” by engineers from Microsoft and SAS
- Reduced set up time for researchers by days, allowing for easy inference and generation of dataset-ready images

Check24 Fullstack Software Engineer

October 2024 – August. 2025 | Berlin, Germany

- Worked on large-scale platform serving 20+ millions of users, maintaining and enhancing a complex React/PHP codebase
- Participated in daily deployments, involved in every part of software development with a focused team, collaborating and learning in a fast-paced environment
- Development of frontend components with React and improvement of Symfony backend services for increased performance and stability
- Designed and deployed an internal event-management tool (Python/React) used across multiple teams
- Automated manual QA tasks, built an E2E Playwright testing pipeline to reduce testing times by 15% for each deployment

PROJECT EXPERIENCE

β-VAE Research Project

October 2025 | Remote

- Implemented various Variational Autoencoders (VAE, β-VAE, KL-annealing VAE) using PyTorch
- Trained models on standard image datasets, achieving near-theoretical minimum ELBO, analysed latent space structure and model performance using pandas and matplotlib
- Explored solutions to optimizing a VAE and interpreted results, focusing on the rate-distortion trade off of VAEs
- Authored a paper about exploring the Rate-Distortion curve in Variational Autoencoders and its implications for Architectures and representation learning

Python Bootcamp – Language Deep Dive

October 2023 – December 2023 | Berlin, Germany

- Completed 140hrs of coding in a cooperative environment, diving into the python standard library and inner workings of the language
- Practiced refactoring, debugging and testing using built-in python tools and additional libraries like Pytest
- Applied a range of libraries for example web crawling with BeautifulSoup, data processing with pandas or visualizations with matplotlib