

# Emil Sayahi

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**Systems programmer & web developer with experience building & contributing to world-class software ecosystems such as GNOME and the IndieWeb. Knowledgeable in low-level programming, interested in building reliable, fast, memory-safe software that scales.**

## Skills

### Languages:

Rust, C#, JavaScript, Python, Java, PHP

### Technologies:

Linux, Git, GitHub Workflows, Postgres, MySQL, GraphQL, React, MongoDB, Docker, Deno, Node.js, HTML, CSS

### Techniques & Methodologies:

Agile, Scrum, unit testing, end-to-end (E2E) testing

## Experience

### Hearts

Cincinnati, OH

#### Technology Lead

August 2024 - Present

- Led feature development on 5-person backend team, using Deno, PostgreSQL, Supabase, and Google Cloud Platform.
- Created GitHub Actions CI/CD deployment pipelines, implemented JWT-based authentication.
- Negotiated with vendors, represented technical operations at conferences & investor meetings.

### Protiviti

Boston, MA

#### Technology Consulting Intern

May 2024 - August 2024

- Aided 2 senior consultants for automotive client concerned with regulatory compliance requiring business platform transformation (BPT) after \$340m acquisition.
- Developed SAP BusinessObjects reports and universes in Web Intelligence and Information Design Tool as part of reimplementing a major client dashboard.
- Discovered & resolved recurring data loss among consulting team by introducing version-control procedures.
- Automated creation of certain client deliverables with Python scripts, eliminating 4+ hours of deliverable creation & validation.

### HCLSoftware

Remote

#### Software Engineer Intern

May 2023 - August 2023

- Identified & resolved bugs, and designed & built UI elements, as developer in 10-person core team for HCL Accelerate and IBM UrbanCode Velocity products.
- Transitioned product from Docker Compose V1 to V2. Migrated portions of React frontend from class components to function components.
- Developed frontend of new major customer-facing feature that had previously been delayed by 3+ months.

### Miami University, Department of Computer Science & Software Engineering

Oxford, OH

#### Teaching Assistant

August 2022 - December 2023

- Assisted with instruction of Systems 1 and Fundamentals of Programming courses at Miami University; material consisted of object-oriented programming, Java, C/C++, introductory networking, introduction to computer architecture, and introduction to relational databases & SQL.
- Graded assignments, guided students in lab sessions, and held weekly two-hour help sessions.

### Miami University, IT Services

Oxford, OH

#### Software Engineer Intern

May 2022 - May 2024

- Developed integrations with applications in Miami University's IT Service Management ecosystems using TeamDynamix iPaaS and Python scripts.
- Created internal tool to manage data associated with 62+ university-owned buildings, eliminating the need to purchase updates for facility management software & 2+ weeks of manual database changes every 16 weeks.
- Created internal tool to manage university-owned hardware, improving record-keeping & accountability.
- Authored documentation of best practices, internal procedures, and technical standards; onboarded new engineers.
- Presented at the 2023 Ohio Higher Education Computing Council (OHECC) Conference at Wright State University on ITSM best practices for higher education.

### Miami University, Office of Government Relations

Oxford, OH

#### Government Relations Intern

August 2021 - May 2024

- Advocated for Miami University in meetings with state legislators, the Ohio Department of Higher Education, and aides of US Representatives.
- Advocated for funding of Pell Grants, Ohio College Opportunity Grants, State Share of Instruction, and Choose Ohio First Scholarships.
- Supported presidents, government relations directors, and students of Inter-University Council of Ohio members in opposing state legislation.

## Projects & Presentations

### Introduction to Quantum Machine Learning

November 2023

Lecture given at the Miami University Physics Department seminar on introductory quantum computing, machine learning, and the intersection of the two fields.

### Oku

May 2023 - Present

Open-source web browser, peer-to-peer protocol, & social bookmarking system with 500+ users and 160+ GitHub stars. Recipient of €5 000 NLnet NGIO Entrust grant as part of the European Commission's Next Generation Internet initiative.

### Automation in IT Service Management

May 2023

Talk at the 2023 Ohio Higher Education Computing Council conference detailing technical & administrative best practices for ITSM automation in higher education.

### Analysis of Potential Malicious Strategies toward Bit-Exchange with IPFS

April 2022 - August 2022

Research project investigating attack vectors in a private IPFS network, funded through Miami University's Undergraduate Summer Scholars Program.

## Education

### Miami University

Oxford, OH

Bachelor of Science in Computer Science — GPA: 3.81 (magna cum laude)

August 2021 - May 2024

## Awards & Certifications

### Intellectual and Cultural Leadership

May 2024

### Commendation in Undergraduate Research

May 2023

### Dean's List

Fall 2023, Fall 2022, Spring 2022, Fall 2021

### Choose Ohio First Machine Learning Scholarship

August 2023, August 2022, August 2021

### Bertelsmann Technology Scholarship Program

December 2021