Zachary Robinson

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EDUCATION

Swarthmore College, Swarthmore, PA   Expected Graduation Fall 2023
BA, Computer Science with minors in Engineering & English Literature
Relevant Coursework: Algorithms, Programming Languages, Compilers, Human-Computer Interaction, Theory of
Computation, Computer Architecture, Data Structures & Algorithms, Discrete Math, Linear Algebra, Calc BC (AP credit)
GPA: 4.0 (major), 3.9 (overall)

SKILLS AND INTERESTS

- *Computer Languages:* Python, Typescript, HTML/CSS/JS, Java, Kotlin, OCaml, Rust, Bash, PowerShell, C, Verilog
- *Technologies:* React.js, Kubernetes, Git/GitHub, Unix/Linux administration, Next.js, Webpack, Ansible, Docker, VMWare, WebRTC, NoSQL databases, Express.js, LaTeX
- *Other Skills:* Project management, writing for various audiences, public speaking & presentations

INDUSTRY EXPERIENCE

Software Engineer Intern, *Arcesium*, New York, NY   Summer 2023
- Decreased workstation-related support queries by 50% by developing a new web portal for managing developers' cloud-based workstations, using React.js, AWS Lambda, CloudFront, DynamoDB, and other technologies
- Engineered a new component to filter and control mail egress from Kubernetes, preventing data leakage and reporting delivery status to internal products to increase reliability
- Created cost analysis tool to allocate and generate summary reports for over $1M in annual spend

System Administrator Intern, *Polaris*, Minneapolis, MN   Summer 2022
- Developed and documented best practices for Ansible usage appropriate to Polaris's infrastructure landscape
- Automated backup configuration for 200+ development VMWare virtual machines in new cloud environment
- Won "Innovation Challenge" among 12 intern teams by proposing new use cases for vehicles' onboard software

Software Engineer Intern, *WeWyll*, remote   Summer 2021
- Developed Express.js and MongoDB backend for new web app
- Created full OpenAPI specification and data model to coordinate with other team members

Software Engineer Intern, *Streem*, Portland, OR   Summer 2020
- Researched dependencies & build processes for open-source libraries and software solutions under consideration
- Wrote test applications using Kotlin, Android, and WebRTC to assist development of a new video backend solution

VOLUNTEER EXPERIENCE

Co-President, *Swarthmore College Computer Society,* Swarthmore, PA   Mar 2021–Present
- Manage server and software infrastructure to provide online services for 1,600 students (1,000+ page hits per day)
- Created new home page, account management system, administrator panel, and documentation CMS (sccs.swarthmore.edu) using TypeScript, Express.js, and Docker
- Rewrote server backup system using shell scripts to increase backup speed by 100% for 1.3TB of data
- Organized recruitment, individual interviews, application review, and onboarding for 45 prospective staff members
- Provided project management and technical guidance to ~15 staff members for misc. club projects (Minecraft server hosting, UPS replacement, course planning system updates, etc.)

Control System Advisor, *FIRST Mid-Atlantic*, Philadelphia, PA area   Mar 2022–Present
- Help ~30 teams of high school students and their adult mentors debug their robots during each competition
- Diagnose a wide variety of software, electrical, and mechanical problems, often under extreme time pressure
- Write post-event reports summarizing common problems and trends for submission to FIRST Headquarters