

Alex Mononen

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SKILLS

Software engineering, backend, project management, embedded systems, testing, algorithms, AI principles, computer architecture, Agile/Scrum, parallel and distributed computing, computer networking, Java, C, C++, Go, Python, Bash, TCP, IP, x86 Assembly, MySQL, HTML5, CSS, GDB, Docker, Kubernetes, Drupal, Git, Jira, TravisCI, TeamCity, REST APIs

EXPERIENCE

- AdminInternet** Windham, New Hampshire
Backend and Devops Engineer January 2021 - Present
 - Built and deployed a lightweight docker image to be used on hundreds of Drupal websites to reduce site turnaround times by 20%
 - Customized a corresponding local development image for our team of 8 developers to use
 - Created workflows and led the company's move from SFTP to Git, Jira, Docker, and Agile/Kanban project management techniques
 - Designed and wrote software for integrated web applications in Drupal w/PHP, JavaScript, XML, HTML, and CSS
 - Learned & refined skills in many new tech stacks & languages – PHP, SQL, docker, JavaScript
 - Oversaw continuous integration and deployment of sites to a staging server while keeping databases synchronized, allowing developers to test configurations, reducing in corrections to production sites by 33%
 - Automated procedures using scripts to maintain synchronization of databases across multiple developers workstations, reducing development errors by 15%
 - Audited previous sites and server configurations for security vulnerabilities
- University Of Rochester IT** Rochester, New York
Backend Web Developer August 2019 - May 2021
 - Maintained and updated our student management website to support a different LDAP provider to accommodate 1,000's of new students
 - Led the transition from Python to Go for a 35% speed reduction from TTFB to full page load
 - Transition and deployment of site to Docker with load balancing provided by Kubernetes
- University Of Rochester Mechanical Engineering** Rochester, New York
Machine Shop Assistant August 2019 - Present
 - Taught basic machine shop safety protocols and policies to 150+ students, resulting in no injuries
 - Oversaw and advised all student's course projects
 - Led a team of other students for consistent shop and machine maintenance, resulting in a 12% less downtime

PROJECTS

- Owie:** Used C, C++, and embedded systems knowledge to develop an open source alternative to a chip that bypasses hardware locks and limitations on Onewheels, potentially saving users 1,000+\$
- Galactix:** Parallelized an astronomic simulation software, and ported it to CUDA, decreasing the runtime by 35%
- Distributed Course Registration:** A bot that utilized a network of Arduinos to register for classes first. Had a 100% success rate, and was 130x faster than doing it manually

EDUCATION & SELECTED COURSEWORK

- University Of Rochester** Rochester, New York
Class of 2022 - B.S. Computer Science; GPA: 3.28 August 2018 - May 2022
- Parallel & Distributed Systems:** Covered programming interfaces to parallel and distributed computing, communication between multiple processes, synchronization, and consistency models, fault tolerance, distributed process management, distributed file systems, multiprocessor architectures, and parallel program optimization
 - Machine Learning:** Covered foundations of classification, regression and decision-making; perceptrons, logistic regression, support vector machines, and neural networks; directed & undirected graphical models, numerical parameter optimization including gradient descent, expectation maximization, and other methods.