ETHAN HUANG

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PROFESSIONAL EXPERIENCE

Supermicro | Software Engineer | San Jose, CA   11/2023 - Current

Full Stack Development:

- Develop mission-critical internal applications, such as firmware flashing, inventory, and BOM management, using TypeScript, React, Express, and databases like MSSQL, MariaDB, MySQL, Cassandra and ScyllaDB.
- Reduce operational overhead by 30% on the global production lines by implementing user-requested features.
- Refactor legacy code, reducing codebase complexity and increased test coverage to over 95% using Jest.
- Improve SQL query performance by 80% through GraphQL with Apollo Server, optimize batch processing, streamline data fetching and boost API efficiency.
- Enhance distributed system stability by implementing multi-cluster data synchronization, database migration, backup, and disaster recovery with Rook-Ceph, Syncthing, and MariaDB Galera, significantly reducing downtime.

DevOps and Infrastructure:

- Bootstrap and manage 10+ highly available, multi-region on-premises Kubernetes clusters, automating bare-metal provisioning with Ansible and ensuring reliability with HAProxy, Kube-VIP and Nginx.
- Independently design and establish CI/CD pipelines with DroneCI, ArgoCD, Helm, and Kustomize, deploying 20+ applications across 10+ Kubernetes clusters in multiple environments, significantly cutting deployment time and overhead.
- Reinforce data availability with Rook-Ceph for distributed storage and improve observability with Prometheus and Grafana.
- Construct multi-purpose development environments with Docker Compose and Virtual Machines, cutting setup time by 60% and image sizes by 80%, boosting efficiency and resource utilization.
- Participate in on-call rotation, troubleshooting and resolving critical issues rapidly to minimize system downtime by 90%.

NavisX (previously Alluring-Self) **| Software Engineer | Remote**   3/2023 - 10/2023

- Developed a web application with 20+ custom React components using Next.js 13, TailwindCSS, Typescript and Zustand.
- Led the technical team at an early-stage startup, driving market research and product strategy in a fast-paced environment.

EDUCATION

Cornell Tech, Cornell University   2021 - 2022

Master of Engineering in Computer Science | GPA: 3.5 | Merit Scholarship   New York, NY

- Coursework: Machine Learning, Cryptocurrencies, Cybersecurity, Computer Vision

University of California - San Diego   2019 - 2021

Bachelor of Science in Computer Science | GPA: 3.94 | Provost Honors   La Jolla, CA

De Anza College   2017 - 2019

Associate of Science in Computer Science | GPA: 3.9 | Dean's List   Cupertino, CA

PROJECTS & OPEN SOURCE EXPERIENCE

www.ethanhuang.dev | AWS EC2, Amplify, Next.js, React.js, Typescript, TailwindCSS, MongoDB, Docker

- Built a personal portfolio and blog website hosted on AWS EC2 and Amplify, featuring enhanced SEO, optimized image and link loading, command palette, dark mode, and responsive design.

CryptoArb | C++ STL, OOP, SQLite, Docker, CMake, OpenSSL, Smart Pointers, GDB

- Developed a crypto trading system for arbitrage, leveraging data analysis and graph algorithm to identify profits and mitigate risks.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, Bash, SQL, C++, C, Lua

Frameworks & Libraries: React, Next.js, Node.js, Express, GraphQL, Apollo Server, Jest, TailwindCSS, C++ STL, Pandas, NumPy

Databases: Relational (MSSQL, MySQL, MariaDB, SQLite), NoSQL (Cassandra, ScyllaDB, MongoDB), Kafka, Redis

Infrastructure, DevOps & Cloud: Kubernetes, Docker, Linux, AWS (EC2, Amplify), Helm, Kustomize, ArgoCD, DroneCI, Prometheus, Grafana, Ansible, Terraform, NGINX, HAProxy, Rook-Ceph, Syncthing, Vagrant, Etcd, YAML

Developer Tools: Git, GitHub, GitLab, SSH, Make, Postman, Virtual Box, Hyper-V, Neovim, Tmux