Keane Wong

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Education

University of California - Irvine Irvine, CA
Bachelor of Science in Computer Engineering, GPA: 3.67/4.00 *Aug. 2020 – Mar. 2023*

Technical Skills

Languages and Frameworks: Python, C++, C#, TypeScript, JavaScript, React, Node.js, Flask, FastAPI, Express
DevOps & Infra: Azure DevOps, GCP, AWS, Docker, Git, CI/CD Pipelines, Monitoring Tools, OAuth
Databases & Tools: PostgreSQL, Elasticsearch, Material-UI, FastDDS, REST APIs

Experience

Full-Stack Engineer II Dec. 2024 – Present
Fluxergy Inc *Irvine, CA*

- Architected development of a parallel task scheduler for multiprocessed firmware operations, helping to reduce diagnostic times by 34%.
- Integrated FastDDS high-speed API, improving data transmission performance by 70%.
- Engineered custom dynamic data transfer protocol saving $25,000 per product over a third party solution.
- Delivered IEC 62304-compliant applications with SonarQube "A" ratings in Reliability, Security, and Maintainability.

Full-Stack Engineer I Sep. 2023 – Dec. 2024
Fluxergy Inc *Irvine, CA*

- Modernized legacy software by developing a dynamic React frontend with TypeScript improving user retention by 21% and reduced user flow error by 59%.
- Built a QC automation tool using React and FastAPI, boosting quality control throughput 4x.
- Engineered microservices for a high scalability data pipeline using GCP and Elasticsearch, supporting real-time production diagnostics.
- Incorporate automated build and deployment tools into Azure DevOps CI/CD Pipelines for over a dozen internal platforms.

Full-Stack Engineer (Part Time) Nov. 2021 – May. 2023
Institute of Genomics and Bioinformatics, UC Irvine *Irvine, CA*

- Created a React + Material-UI interface for data access, enabling non-technical users to interact with large genomic datasets.
- Reduced genomic data processing time from 160 days to 7.2 hours using Python multiprocessing and threading.
- Designed an Express RESTful API to serve SQL-backed data via AWS RDS.
- Implemented OAuth gateway for securing encrypted data analysis research.

Projects

SMAC-FIRE Initiative | *C++, PyTorch, Postgres, AWS* Aug. 2022 – Mar. 2023

- Establish high reliability MAVLink2 communication API in C++ decreasing packet loss by 40%.
- Assist in designing ML models for predicting wildfire spread improving accuracy by 14%.
- Formed multilayered architecture and asynchronous protocols for subsystems to communicate with.

Itadakimasu Culinary Website | *React, Express, Postgres, AWS* May. 2020 – Aug. 2021

- Coordinated a team of 5 members of diverse skillsets for cross-functional collaboration on project deliverables.
- Developed a complete PERN stack application supporting user-generated content and secure authentication via OAuth.
- Architected backend infrastructure for scalable post and comment management using REST APIs.