

Professional Summary

Full Stack Software Engineer with 2+ years developing enterprise applications using React, Fast API, Express.js, and MongoDB/PostgreSQL in aerospace and semiconductor industries. Proven ability to modernize legacy systems, build secure APIs, implement CI/CD pipelines, and deliver responsive interfaces used by daily users in mission-critical manufacturing environments. Passionate about building scalable, high-impact digital solutions that solve complex operational challenges.

SKILLS

- **Languages:** Python, JavaScript/TypeScript, C#
- **Frameworks:** React.js, Express.js, Fast API, Django,
- **Databases:** MongoDB, PostgreSQL, SQL Server
- **DevOps & Cloud:** Docker, GitLab CI/CD, AWS, Nginx, Linux/WSL2
- **Infrastructure & Other Tools:** Git, Git Bucket, REST APIs, Postman, Pytest, Jest, Power BI

WORK EXPERIENCE

ST Engineering Aerospace Engines (STEA) – Singapore

Software Engineer | Sept 2024 – Present

- Architected and deployed **3+ full-stack production systems** including a real-time job clocking Human-Machine Interface, resource booking platform, and maintenance request system using React, Fast API, Express, MongoDB, PostgreSQL, Docker, and AWS services
- **Built scheduling platform** that consolidated data from multiple legacy systems via REST APIs, reducing booking **conflicts by 60%** and enabling cell leaders to manage technician and machine availability in real-time
- **Developed live authentication and job tracking system** integrating with company databases to automate technician clock-in/clock-out workflows and real-time duration tracking
- **Designed dual-interface calendar system** with separate views for cell leaders (resource management) and technicians (daily schedules), processing complex availability queries using optimized MongoDB aggregation pipelines
- **Led technical migration** from Django to React TypeScript + Fast API + PostgreSQL stack for maintenance workflows, implementing validation layers and data integrity rules
- **Established DevOps practices** by containerizing applications with Docker, building GitLab CI/CD pipelines, and deploying to internal AWS cloud infrastructure
- **Collaborated with cross-functional teams** including UX designers and product managers to iterate on features and improve shopfloor user experience

Infineon Technologies - Singapore

Python Developer / Chip Verification Engineer | Jun 2023 – Sept 2024

- Developed **Python GUI applications (Tkinter, Matplotlib, Plotly)** for real-time visualization of semiconductor test data, enhancing chip reliability analysis under varying temperature conditions.
- Automated data analysis pipelines that reduced manual review time by **50%**.

EDUCATION

Nanyang Technological University (NTU)

Aug 2020 – Jun 2023

- **Bachelor of Engineering (Electrical and Electronic Engineering)**
- **Honours (Merit)** • Specialization: **Info-Communications Engineering (Computer Engineering)**