

CHIEH SHIH

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Professional Experience

BNY Jersey City, USA
Senior Associate Full-Stack Engineer May 2023 - present

- **Led the design and development** of an enterprise-wide **Account Management System** for 100k+ users, built with **Java**, **JavaScript**, **Spring Boot**, **Angular**, and a containerized architecture using **Docker** and **Kubernetes**. Integrated **Oracle DB**, **Postgres**, **MongoDB**, **LDAP**, and **Active Directory**, reducing manual account management workload by **85%**.
- **Collaborated with Broadcom** team to design and optimize the **Privileged Access Management** with **Java RESTful APIs**, enforcing compliant, least-privilege access. Enhanced Splunk monitoring **reduced unauthorized access** and production change risk by **95%**.
- **Mentored** junior developers and **led the migration** of an on-premise infrastructure to a **SaaS solution**, improving system uptime by **99.9%** and cutting infrastructure costs by **55%** while enhancing **scalability**, **reliability**, and **system resilience**.
- Utilized **AI Tools**, including **GitHub Copilot** and **Cursor**, to **modularize repetitive operational tasks into automated tools**, enhancing workflow efficiency and **saving** each operations team approximately **17 hours per week**.
- Utilize **GitLab** to set up and manage **CI/CD** pipelines, integrating monitoring tools such as **Grafana** to ensure continuous delivery, real-time performance insights, and improved stability in development and production environments.

BNY Remote in New York, USA
Full-Stack Engineer Apr 2021 - Apr 2023

- **Spearheaded the modernization** of the legacy eServices with **Typescript**, **React** and **Node.js**, leveraging **Docker** for streamlined containerization and deployment. Integrated **Splunk for centralized logging** and **Grafana** for real-time performance **monitoring**, achieving a **45% reduction in UI response time** for external client credential management.
- Implemented robust **authentication & authorization** mechanisms using **Java** and **Spring Security**, enhancing platform security and compliance with **banking industry regulations**.
- Designed and implemented **Java-based** intelligent automated daily batch jobs to integrate HR system data, enabling seamless onboarding and permission provisioning for 100k+ global BNY Mellon employees and clients. **Reduced manual HR workload by 70%, saving thousands of hours annually** while ensuring secure, consistent access.

ECARD Inc. New York, USA
Software Engineer Oct 2019 - May 2020

- Automated background checks by implementing the **LexisNexis API** within a **React** and **Node.js-based platform**, **boosting** the ECARD debit card **application rate** by about **400% (from 500 to 2.5K users)** within two months.
- Developed and enhanced partner-facing application features with **RESTful APIs** integrating **ORM** and leveraged **Python for data analysis and report automation**, enabling the marketing team to identify applicant demographics and **increasing** third-party partner-driven **applications by 55%**.
- Optimized **Postgres** database queries and **indexing** to improve data retrieval efficiency and support scaled application loads.

BioCampLab - Kaohsiung Medical University Kaohsiung, Taiwan
Research Assistant – Full Stack Developer Oct 2015 - Mar 2017

- Leveraged **machine learning** with **Weka** algorithms to build a **QSAR model predicting biological activity of chemical compounds**, supporting research with **R** for data preprocessing, **Go** for API development, and **JavaScript** for interactive **visualization**.
- Developed and launched **SkinSensDB**, an interactive platform, **implementing Python scripts for efficient backend data processing and integrating RESTful APIs** to facilitate global collaboration in biological research.

Skills

Programming Languages: Java, JavaScript, TypeScript, Python, Go, PHP, SQL, HTML/CSS

Frameworks: Spring Boot, Spring Security, Angular, React.js, Node.js, Next.js, Junit, Mockito, Vue.js, Phalcon

Others: Oracle SQL, Postgres, MongoDB, JMeter, Splunk, Kubernetes, Git, GitLab, Docker, AWS, Linux, Apache, Splunk, Grafana

Education

Master of Science in Computer Science 2019
Stevens Institute of Technology, Hoboken, New Jersey

Bachelor of Science in Telecommunications Engineering 2014
Feng Chia University, Taichung, Taiwan