Kian Lak

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Experience

Software Engineer Intern May 2025 – Aug. 2025
Paycom *Irving, TX*

- Implemented a secure login system for internal tooling by integrating **LDAP** and **Azure AD**, enabling authentication and access control for **10,000+** developers, significantly improving security and maintainability
- Built and deployed a notification system to alert internal users of all production-breaking changes of our application, projected to reduce response time by up to **60%** and enable faster recovery during critical releases
- Optimized internal **React** application by implementing code splitting and bundle size reduction, decreasing initial load time by **33%** and improving overall user experience for **1000+** developers

Software Engineer Jun. 2023 – Sep. 2024
Cognizant *Plano, TX*

- Engineered a high-performance microservice **REST API** with **Java Spring Boot**, designed for scalable data processing with strict validation and modular deployment, improving reliability across the backend system
- Integrated **AWS CodePipeline** and **AWS EC2** to automate deployment of **REST APIs**, increasing infrastructure reliability and reducing manual errors in delivery workflows for **100,000+** users
- Used **Java Spring Boot** security filter to ensure safe **API** calls from authorized users

Software Engineer Intern May 2022 – Aug. 2022
Interactor *Remote*

- Designed a machine learning–based error detection module with **82%** accuracy to scan client invoices and identify anomalies, helping prevent costs of up to **$5000 - $10,000** per client
- Leveraged precision PDF parsing tools to detect document structure enabling accurate extraction of structured data from unstructured documents and reducing manual processing time by over **70%**

Software Engineer Intern May 2021 – Aug. 2021
Zeal IT Consultants *Dallas, TX*

- Developed a distributed, object-oriented chat system in **Python** using socket programming, asynchronous message queuing, and session persistence allowing **100+** concurrent users to chat with low-latency performance
- Built a **Python REST API** that filtered and prioritized results using data-driven algorithms and leveraging collected metrics to enhance relevance - leading to a **84%** accuracy
- Proposed and implemented **front-end** and **back-end** features that enhanced the performance, usability, and responsiveness of Zeal IT Consultants' customer-facing website, improving overall user engagement

Competitions

Toyota HackFesta 2024
* Participated in Toyota HackFesta focused on vehicle cybersecurity and threat modeling on a **CAN Bus** and **PASTA**
* Finished **4th** after capturing **90%** of flags over a variety categories (Forensics, Encryption, Server, etc.)

TTS-US Capture the Flag
* Participated in TTS-US's CTF with general questions covering **Data Recovery**, **Forensics**, and **Reverse-Engineering**

Technical Skills

Languages: Java, Python, Javascript, Typescript, MySQL, PostgreSQL, HTML, CSS, C, C++, C#
Frameworks: React, Angular, Spring Boot, Next.js, ASP.NET, Node.js, Vite, JUnit, Jest, Electron
Libraries: PyTorch, NumPy, Scikit-learn
Tools & OS: Git, Docker, VS Code, AWS, Kali Linux, Linux, Window, BurpSuite, Ghidra, WireShark, Nmap

Publications

"Defending Against Adversarial Images Using Machine Learning" (Currently being worked on)

Education

University of Texas at Dallas Richardson, TX
Master of Science in Computer Science — 3.5 *Aug. 2024 – May 2027*

University of Texas at Dallas Richardson, TX
Bachelors of Science in Computer Science — Cum Laude — 3.697 *Aug. 2019 – May 2023*