KEVIN (ZHENGKANG) CHEN

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PROFESSIONAL SUMMARY

Software Engineer with 5 years of experience in backend development, API integration, and full-stack development. Proficient in programming languages including Python, Java, JavaScript, and C++. Experienced in developing scalable applications using cloud technologies like GCP and building machine learning models with TensorFlow. Skilled in Agile leadership and collaboration, driving impactful solutions and fostering continuous improvement.

SKILLS & COMPETENCIES

Programming Languages & Frameworks: Python, Java, C++, C, JavaScript, SQL, TypeScript, Django, Flask, ReactJS, NextJs, TensorFlow, Node.js, MATLAB, HTML/CSS

Technical Skills: Web Development, Problem Solving, Git, API Development, RESTful APIs, End-to-End Testing, Pytest, Jest, Docker, Machine Learning, Data Visualization, Pandas, NumPy, Scikit-learn, Google Cloud Platform, Vercel, SVN, Postman, Jira, Swagger, CI/CD, Sentry Confluence, Notion, Linux, Windows

PROFESSIONAL EXPERIENCE

Backend Software Engineer   May 2024 – Sep. 2024
Pronti AI   *Waterloo, Ontario, Canada*

- Developed **REST API** endpoints using **Flask**, **GCP**, **PostgreSQL**, and **MongoDB**, boosting user engagement by 10%.
- Collaborated with frontend engineers enhancing **Flask** backend by resolving critical issues, boosting system performance and reliability by over 30%.
- Optimized a Multi-Layered Comparison Network (MCN) with **ResNet-50** for personalized outfit generation, streamlining model outputs directly to the mobile app.
- Containerized the entire backend infrastrucutre with **Docker** and deployed on **GCP Cloud Run**, improving scalability and deployment efficiency.
- Developed **End-to-End** testing with **PyTest**, optimized **CI/CD** pipelines via **Google Cloud Build** and **GitHub Actions**, and documented APIs with **Swagger**, improving reliability and maintainability.

Digital Automation Engineer   May 2021 – Sep. 2022
The Six Semiconductor Inc.   *Markham, Ontario, Canada*

- Streamlined development with **Python-based** automation checkers in CMake and advanced **SVN** strategies, automating deployments with **Bash** and **Perl**, reducing error detection time by 40%.
- Enhanced data processing workflows by developing Python scripts with the **Pandas** library for automated data scraping, parsing, and correction, integrated with **HTML** views for data visualization.
- Collaborated with cross-functional teams to define requirements, deliver tasks on time, and mentor interns, ensuring project success and effective knowledge transfer.

PROJECTS

Restaurant Online Ordering System: Major Contributor   Jan. 2025 – Present

- Built a full-stack web application for a Chinese food delivery service with real-time order tracking, menu browsing, secure checkout, and admin tools for analytics.
- Developed API routes in **Next.js** with **PostgreSQL** for data handling and seamlessly integrated **NextAuth** for authentication.
- Implemented a responsive frontend using **ReactJS** and **Next.js**, ensuring compatibility across desktop and mobile.
- Deployed the application on **Vercel**, fully utilizing its serverless architecture for enhanced scalability and robust reliability.

AI-powered E-Commerce Web App: Team Leader   Jan. 2024 – Apr. 2024

- Designed and implemented an E-Commerce platform using **Django**, **React** with **Redux**, **Figma**, and **Tailwind CSS**, incorporating personalized recommendations with user-based and item-based collaborative filtering.
- Implemented secure user authentication with **OAuth 2.0** and **JWT**, and engineered **end-to-end automated testing** using **Pytest** and **Jest**, achieving 85% code coverage.
- Led **Agile** workflows, including sprint planning, team code reviews, and scrum meetings, ensuring timely delivery and maintaining high code quality standards.

EDUCATION

University of Waterloo   Sep. 2023 – Sep. 2024
Master of Electrical and Computer Engineering, Specialized in Software Engineering, GPA:83.88%   *Waterloo, Ontario, Canada*

McMaster University   Sep. 2018 – Apr. 2023
Bachelor of Electrical and Computer Engineering (Co-op), GPA:10.5/12, Dean's Honor List   *Hamilton, Ontario, Canada*