

# KEVIN (ZHENGKANG) CHEN

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[About Me](#)

## 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 infrastructure 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