Winbert Zhang

650-229-3714 | winbertzhang@gmail.com | winbertzhang.com

Education

University of California, Santa Barbara June 2025
B.S. in Computer Science *GPA: 3.86/4.00*
Relevant Coursework: Operating Systems, Networking, Databases, Machine Learning, Computer Architecture, Software Engineering, Algorithms and Data Structures, Object-Oriented Programming, Probability and Statistics
Leadership Roles: TASA Co-President, Data Science Treasurer, Theta Tau Recruitment Head
Awards: Regents Scholar, College of Engineering Honors

Experience

Software Engineer Intern June 2024 – Present
Vitu *Agoura Hills, CA*
- Developed Generative AI document processing pipeline on Google Cloud Platform for millions of PDFs monthly, increasing auditor efficiency by 30% through automated classification and verification of key document fields.
- Built C# API for key-value extraction, reducing manual entry times and increasing processing speed by 40%.
- Implemented data security protocols using Google DLP API to safeguard sensitive document information.

Website Developer Intern June 2023 – June 2024
UCSB Health and Wellness Department *Santa Barbara, CA*
- Developed an app for inventory management, reducing staff time spent on inventory tracking tasks by over 50%.
- Automated inventory updates with SendGrid API, ensuring timely email alerts to minimize supply shortages.
- Integrated Google OAuth for secure authentication, enhancing security and simplifying user management.

Software Developer Intern June 2022 – Sept 2022
X-Camp Academy *San Jose, CA*
- Streamlined Learning Management System functionality using Java and Vue.js to improve operational efficiency, cutting time spent on course and user management by 30% and enabling staff to complete tasks twice as fast.
- Built scalable REST API endpoints, cutting data retrieval time by 25% and supporting future system growth.
- Automated migration from spreadsheets to database, reducing manual entry and saving admin time by 40%.

Projects

AppFolio Anomaly Detection Capstone | *Capstone Website* Sept 2024 - Present
- Developed a machine learning anomaly detection system using Isolation Forest and Autoencoders to classify anomalous transactions; improved model accuracy through hyperparameter tuning and feature engineering.
- Built a full-stack web application with React frontend and Flask backend, featuring a dashboard to visualize transaction history, anomaly scores, and model insights, with secure Google OAuth login integration.
- Deployed model to a Linux server with Docker, supporting real-time predictions of up to 100 requests per second.
- Worked with AppFolio mentors in sprints to build and refine the project, enhancing features based on feedback.

Smart Split | *Github Repository* August 2024
- Launched receipt expense tracking and splitting web application to convert receipt images into structured JSON data, enabling automated bill splitting for college students and reducing manual expense tracking by 80%
- Integrated Google Generative AI (Gemini 1.5) API for accurate extraction and classification of receipt items.
- Managed Firebase backend for secure user authentication, real-time database updates, and scalable data storage.

GauchoCourses | *Github Repository* Nov 2022
- Empowered over 1000 college students by developing and launching an intuitive course planner web application.
- Enabled seamless access to real-time data on 3000+ courses by integrating Spring Boot backend with UCSB API
- Facilitated collaboration through Git version control, enabling efficient team workflow and project updates.
- Reduced operational costs by 20% through optimized AWS Lambda deployment, enhancing resource efficiency.

Skills

Languages: Java, Python, C++, C#, SQL, JavaScript, HTML, CSS, TypeScript
Frameworks & Tools: Next.js, Vue.js, Spring Boot, .NET, Flask, Express.js, Tailwind CSS, PyTorch, Docker
Cloud & Databases: Google Cloud Platform (GCP), AWS, PostgreSQL, MySQL, MongoDB, Firebase
Other Experiences: USACO Silver, COSMOS Physics, TeamsCode EVP, ACF Coding Coach