

Gary Chhina

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Education

University At Buffalo, The State University of New York

Buffalo, NY

Bachelor of Science, Computer Science

September 2021 - May 2025

Relevant Coursework: Intro To AI, System Programming, Web Applications, Algorithm Design and Complexity, Intro to Microprocessors, Software Unit Testing, Software Development, Computer Security, Data Structures

Experience

Securitas Technology

Remote

Backend Software Engineer Intern

March 2024 – August 2024

- Developed and led into production an internal company AI-driven chatbot using Google Cloud Platform's Vertex AI and Dialogflow CX, trained with LLMs on over 5,000 Q&A pairs, resulting in a 40% reduction in service time.
- Implemented a React web application with Firebase to host the AI chatbot and Google authentication.
- Built and maintained scalable data pipelines using Python and Google Cloud Functions to automate extraction, transformation, and loading of marketing data from Marketo into GCP BigQuery.
- Managed GCP Cloud Tasks to ensure asynchronous job executions, enhancing scalability and reliability of data processing services using a method map for state management across different pipeline stages.
- Participated in daily Scrum and employed Agile methodologies enhancing team collaboration and efficiency.

DBL Express

Buffalo, NY

Technology Intern

May 2022 – January 2024

- Automated POS CSV parsing in Python, optimizing fuel inventory with trend analysis visualized via matplotlib.
- Utilized shell scripting on Linux to maintain the XML database, ensuring accurate pricing and margins.
- Built a financial model in Python and Excel streamlining inventory tracking for gasoline and lottery sales, improved revenue and profit estimations while cutting down manual paperwork by over 20%.
- Utilized data analytics to identify areas of improvement leading to renegotiations of fuel and service contracts, securing \$750,000 in projected savings over seven years.

Projects

Custom TCP Server | Python, MongoDB, Docker

April 2024

- Created a TCP server with custom HTTP request parsing and utilized Docker for containerized deployment.
- Implemented secure user auth with salted hash passwords, password validation criteria, login/logout functionality, Spotify OAuth 2.0, and session management via auth tokens and XSRF tokens.
- Implemented a live chat and video chat feature using WebSockets for real-time message transmission. Ensured message buffering and frame parsing to handle large payloads and continuous communication.
- Set secure and HttpOnly cookies, escaped HTML to prevent XSS, and HTTPS with WSS for WebSockets.

Weather Wizards Web Application | Linux, Apache, MySQL, PHP, Javascript, React

January 2024

- Developed and deployed the backend using the LAMP stack (Linux, Apache, MySQL, PHP), ensuring secure user authentication with bcrypt for password encryption, and token-based session management.
- Implemented server-side load balancing to efficiently handle multiple concurrent requests and improve application scalability and reliability, providing real-time and historical weather data via One Call API 3.0.
- Automated backup and recovery processes for MySQL databases, ensuring data integrity and availability through scheduled cron jobs and replication strategies.

Theta Tau Mobile Application | JavaScript, React Native, MySQL, Expo

November 2023

- Designed and built iOS app using React Native, integrating JSON databases for dynamic data population.
- Implemented a secure backend auth system with MySQL for user sign-ins, ensuring integrity of privileged features.

Skills

Programming Languages: Python, JavaScript, Java, Scala, C/C++/C#, ARM/MIPS Assembly, SQL, GraphQL, PHP

Developer Tools: IntelliJ, VS Code, XCode, Expo, Emacs, Vim, Docker, GDB, Code Composer, Jira, Github, Terraform

Technology/Frameworks: Unix/Linux, Gherkins, ReactJS, Node.JS, Angular, MongoDB, MySQL, Kafka, GCP, AWS

DevOps: Test Driven Development (TDD), Behavior Driven Development (BDD), CI/CD Pipelines, Jenkins, GitLab CI

Extracurriculars

Theta Tau Fraternity Fundraising Head

September 2023 - Present

Mid-Hudson Valley Sikh Society Volunteer

January 2020 - Present