

Bao Chau

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Summary

Results-driven Software Engineer with a Bachelor's in Software Engineering and certifications in Cybersecurity & Privacy, specializing in backend development, REST APIs, and cloud-based solutions. Proven ability to design scalable systems, with expertise in Node.js, Python, and microservices.

Education & Certifications

<i>Bachelor of Software Engineering</i> - University of Texas at Arlington (<i>Cum Laude</i>)	May 2025
UTA Cybersecurity and Privacy Certificate	May 2025
NSTISSI No. 4011	Apr 2024
CNSSI No. 4013E	Apr 2024

Skills

Programming Languages: Python, Java, C++, JavaScript, SQL

Frameworks and Tools: Node.js, Express.js, Flask, fastAPI, MongoDB, Firebase, Git, Docker, pandas, numpy, cryptography, sklearn, matplotlib, SQLAlchemy, Google Cloud

Core Competencies: REST APIs, Microservices, UML, Data Analysis, Communication, Scrum & Agile, Design Patterns, Unit Testing, Object-Oriented Design (OOP)

Projects

Parking Pal (HACK UTA 2023 Winner) C++, Node.js, Swift UI, Arduino, Python, Firebase

- Accomplished reliable real-time sensor data transmission with a **100ms update rates**, by developing a Node.js backend with multiple API endpoints integrated with Firebase.
- Collaborated on Arduino sensor configuration to streamline sensor readings and data transmission, resulting in efficient real-time monitoring with consistent **sub-100ms latency**

Virtual Chef Android Studio, Flask, Python, OpenAI, Firebase

- Led development of a Flask server that processed requests from Android Studio for managing user recipes and nutrition data, implementing caching for API calls that **reduced response time by 50% and increased system request capacity**.
- Optimized search functionality on Nutritionix API by implementing debounce technique to achieved **60% reduction in unnecessary requests and improving system responsiveness**.

Cookie Track Node.js, Express.js, Firebase, SendGrid

- Implemented a scalable RESTful API for cookie tracking/analysis by applying middleware validation, efficient endpoint structuring, resulting in a **consistent 500ms response time under load**.
- Implemented nested security rules in addition to role-based access control (RBAC)**, as measured by granular permissions for 3 user tiers (admin/moderator/user) across collections, by doing structuring Firestore rules with recursive conditions, JWT claims validation, and attribute-based ACL checks.

Experience

Assisting Accountant, Queen's Nails - Arlington Aug 2022 – Feb 2025

- Assisted the family business in the preparation of financial statements, reconciling accounts, and maintaining financial documentation to match financial transparency and compliance

Tutor Jun 2020 – Dec 2022

- Guided students in finding their own learning style and method by simplify intricate topics, provided constructive feedback, and empower students with the skills and confidence needed to excel academically