

PHUC NGUYEN

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PROFESSIONAL SUMMARY

Computer Science graduate with hands-on experience building **full-stack web** and **native Android applications** using **React, Node.js, Express, MongoDB, JavaScript**, and **Java**. Proficient in developing **RESTful APIs**, implementing **data validation**, and using **AWS Lambda** and **Firebase** for **backend automation** and **cloud connectivity**. Skilled in **MVVM architecture**, **Material Design UI**, and automated testing with **JUnit, Jest**, and **Supertest**. Strong collaborator with a foundation in clean, scalable code and agile development practices.

EXPERIENCE

Quokka.io

Arlington, VA

Software Engineering R&D Intern

June 2024 – August 2024

- Developed and optimized backend services using NestJS and Koa, boosting API responsiveness and improving system efficiency, resulting in a **20% increase in customer satisfaction**.
- Implemented structured JSON schema validation using class-validator, **expanding validation coverage by 50%** and ensuring reliable data handling for user-facing APIs.
- Achieved **80% test coverage through unit and integration testing** with Jest and Supertest, contributing to greater release stability and developer confidence.
- Collaborated with engineers to **design and validate backend logic**, following clean Java-based architectural patterns.

George Mason University - College of Engineering and Computing

Fairfax, VA

Teaching Assistant for Object-Oriented Programming Course

August 2023 – December 2023

- Mentored 50+ students in **Java, debugging, and data structures** through hands-on labs, one-on-one project guidance, and technical discussions with professors to align support with course objectives.
- Reinforced principles of **object-oriented programming, recursion, sorting algorithms, and memory-efficient code** through hands-on examples.

SKILLS

Languages & Development: Java, JavaScript, SQL, TypeScript, HTML, CSS, Python, Kotlin

Frameworks & Technologies: Node.js, Express.js, React, Spring Boot (learning), REST APIs, Firebase, Room, SQLite, Firestore, PostgreSQL, MySQL

Tools & Platforms: Git, GitHub, GitHub Actions, Docker, Linux, Android Studio, AWS (Lambda, EC2), JIRA, Postman

Concepts & Practices: OOP, MVC, MVVM, Clean Architecture, Data Validation, Agile (Scrum), Unit Testing (JUnit, Jest, Supertest), CI/CD (GitHub Actions), Full-Stack Development

EDUCATION

George Mason University, **B.S. in Computer Science**, May 2025

Fairfax, VA

- Relevant Coursework:** Mobile App Development, Data Structures, Operating Systems, Software Engineering, Database Systems, Data Mining, Artificial Intelligence, Networking.

PROJECTS

Gather Mason - Events Organizer Web App

- Designed and developed a **full-stack event management platform** using **Node.js, Express, MongoDB, and React** to allow users to create, filter, and join events based on structured fields like title, date, location, and participants.
- Implemented **RESTful API endpoints** with **Express** and connected them to a **MongoDB** database to handle event creation, user actions, and real-time updates with input validation and error handling.
- Integrated **AWS Lambda functions** to automate scheduled email reminders, simulating production-like campaign automation workflows.
- Developed a dynamic **React frontend** with responsive components, clean routing, and structured state handling to deliver a smooth and intuitive user experience.

Bite Wise – Mobile Food Tracker App

- Built a **native Android app** to help users make smarter food choices by scanning ingredients and enforcing nutrition limits using rule-based keyword matching, synonym detection, and typo correction to reduce false negatives.
- Leveraged **Room and SQLite** for structured offline storage of scanned food data and user preferences, while integrating **Firebase Authentication and Firestore** to provide secure login and seamless cloud sync across devices.
- Integrated **Google ML Kit's OCR** to extract ingredients from product labels and enabled barcode scanning with Open Food Facts API as an alternative source for ingredient and nutrition data.