

Caitlin Ngo

Chantilly, VA | (703) 400-2786 | ngoca@vcu.edu | www.linkedin.com/in/caitlinngo

EDUCATION

Virginia Commonwealth University

Bachelor of Science, Computer Science | Minor in Artificial Intelligence

Dean's List, Cum Laude

Richmond, VA

Graduation Date : May 2025

GPA : 3.53

PROJECTS

Personalized Productivity Mobile App

May 2024

- Developed a mobile to-do list application using React.js, JavaScript (ES6+), and CSS, focusing on a clean, interactive user interface.
- Implemented state management, async/wait, and promise to handle task creation, completion tracking, and persistent memory across screens.
- Designed wireframes and prototypes in Figma, deployed live previews with Expo Snack, and iterated quickly on user feedback.

Productivity Management System

Oct 2024 - Dec 2024

- Built a full-stack web platform for task and progress tracking, integrating a React.js front-end with RESTful APIs and a MySQL database.
- Implemented CRUD operations and dynamic routing to manage user tasks, goals and profiles with real-time updates.
- Containerized the system with Docker and integrated CI/CD pipelines to ensure scalable and consistent deployments across different environments while streamlining collaboration and reducing setup errors for the development team.
- Applied SOLID software design principles and structured a normalized relational database, optimizing query performance and ensuring reliable data integrity across the system.

Safe Human-Robot Collaboration via Smart Gloves

August 2024 - May 2025

- Engineered a real-time system connecting a Rokoko smart glove to an ABB GoFa CRB 15000 robot using TCP/UDP communication.
- Created software modules for gesture recognition, networking, and safety-focused control logic in simulated collaborative environments.
- Demonstrated versatility across front-end interfaces, backend networking, and system integration.

RELEVANT COURSES

Introduction to Object-Oriented Programming, Fundamentals of Software Engineering, Design & Implementation of User Interfaces, Databases, Algorithm Analysis with Advanced Data Structures, Artificial Intelligence, Machine Learning

SKILLS

C#, Java, Python, C/C++, JavaScript (ES6+), HTML, CSS, MySQL, MongoDB, React.js, REST APIs, Docker, Git, Agile/CI/CD

WORK EXPERIENCE

Virginia Commonwealth University

Richmond, VA

Teaching Assistant for Intro to Programming (CMSC 255)

August 2024 - May 2025

- Hosted office hours 5 hours a week, guiding 50+ students in mastering Java OOP principles including inheritance, abstraction, and polymorphism.
- Supported labs and projects by debugging code, teaching problem-solving strategies, and reinforcing good coding practices.

Smiles for Centreville

Centreville, VA

Data Entry

May 2022 - Aug 2023

- Maintained and digitalized patient medical records into a centralized database, improving data accessibility and system reliability.
- Streamlined office workflows, saving around ~3 hours of staff work per week through database optimization.

LEADERSHIP AND INVOLVEMENT

Vietnamese Student Association at VCU, 501c (3) Non-Profit Organization

July 2023 - May 2024

Community Service Chair

- Led community service initiatives, fostering meaningful impact to the Richmond and Vietnamese community, organizing 13 events and coordinating 20+ club members to volunteer, manage logistics, and engage in outreach activities such as food drives, cultural education programs, and fundraising efforts.
- Built and maintained partnerships with local and non-local organizations including RSPCA, Vietnam Society, and school organizations, in efforts to expand the reach and effectiveness of community service efforts, ensuring community impact.

CS Mini-Hack

Feb 2023

- Developed the classic "Snake" game during the 24-hour hackathon using Java and an external API to enhance gameplay functionality including collision detection and random food generation, demonstrating problem-solving skills and the ability to work effectively under tight deadlines.