ELIZABETH CAO

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EDUCATION

Bachelor of Computer Science and Business, Lehigh University, PA *Graduation: Jan 2024*
Relevant course work: Data Structure and Algorithms, Software Engineering, Database Systems Organization Architecture, Robotics, Supply Chain Management, Computer Networking

SKILLS

Languages Python, Java, Swift, C, C++, C#, HTML/CSS, SQL, MATLAB, Rust, LaTeX
Technologies Git, ROS, CAD, Ubuntu/macOS/Windows, VIM, Unreal Engine, Unity, Android Studio

WORK EXPERIENCE

Software Engineer Intern, Apple Inc. *May 2023 - Aug 2023*
- Implemented new features to the FaceTime app on the Apple Vision Pro(VisionOS) for developers.
- Project was selected to present to leadership.

Founder, RobotMatter *Apr 2020 - May 2023*
- Running an online store for electronics, custom designed/developed robot parts, and design files.

Full Time Software Engineer, Atkins Global/SNC Lavalin *Mar 2021 - Sept 2022*
- Implemented and supported new processes for 3D visualization and related technologies using Unreal Engine, C++, and Python, optimizing benefits and ensuring successful project outcomes.
- Independently completed multiple bidding projects, optimizing existing projects for improved efficiency, on-time delivery, and successful outcomes.

Teaching Assistant, Lehigh University Prog. and Data Structures *Sept 2019 - Dec 2019*
- Experienced teaching assistant in algorithmic design and implementation using Java, with expertise in grading and help with explaining and answering students' questions.

PROJECTS

Capstone Team Project: Miniature Driver-less Car *Jan 2023 - Ongoing Project*
- Managing development of car platform for autonomous driving on outdoor track, including hardware, software design, and performance evaluation through simulation and programming language/algorithm analysis.
- Technologies Used: ROS, NVIDIA Jetson, VESC, Common sensor(lidar, camera, ultrasonic), motion planning, estimation techniques, Kalman and Particle filters, localization and mapping.

Combat Robot/BattleBots Season 5, 6 *2018 - Ongoing Project*
- Overseeing development of custom combat robots utilizing diverse methods to defeat rival robots, including project timelines, budget, and team coordination for successful delivery.
- Technologies Used: CAD, 3D printing, forming, turning, water jet, CNC, laser, and other basic machining skills.

Research Project: CORE - VR *May 2019 - Jan 2020*
- Led the development and implementation of an IVR application on Oculus Go/Quest to support effective intervention for individuals with disabilities, overseeing the project's scope and resources to ensure timely and successful delivery of the final product.

LEADERSHIP

Lehigh Alliance of BattleBot Club *2018-2022*
President Designed and marketed unique combat robots

Lehigh University eSports Association *2019-2022*
President Organized events for the largest gaming club on campus

International Collegiate Programming Contest Team *2019-2021*
Treasurer Prepared for algorithmic programming contest

Student Senate XXXII *2019-2020*
Elections Committee, Public Relation Committee Represented in voicing the student concerns