College Park, MD 20742, United States

Guillermo Mascaro

+1 2405057709
gmascarom@gmail.com

Work Experience

Software Engineer   **UMD App Development Club**   **Currently under development**
- Selected among **250+** students to develop a Pediatric Dosing App for the M-CERSI platinum sponsor.
- Accomplished efficient object storage of JSON race data with **MongoDB** that improved data accessibility for the engineers.
- Developing the front-end with **JavaScript** and **React Native**. Using **Flask** and **FastAPI** for the back-end.

DevOps Intern   **CleverIT**   **Summer 2023**
- Implemented (**CI/CD**) pipelines for **Java API's** using the **Spring Boot** and **JUnit** frameworks.
- Increased DevOps pipeline efficiency by **20%**, leading to a **25-minute** reduction in deployment time.
- Integrated the use of advanced automation techniques such as **GitHub Actions**, **Docker**, **Kubernetes**, **GCP** and **Terraform** to the deployment pipeline.
- Exhibited rapid learning and problem-solving skills in a **Agile startup environment**.

Education

Boston, MA   **Northeastern University**   **Fall 2024 – Spring 2025**
- Exchange Student in Computer Science and Engineering.

Washington DC   **University of Maryland**   **Fall 2023 – Spring 2024**
- Exchange Student in Computer Science and Engineering.
- Undergraduate Coursework: Computer Networks; Machine Learning; Computer Security; Data Science; Parallel Computing; Introduction to Compilers; Web Application with JavaScript.

Madrid, Spain   **Charles III University of Madrid**   **Fall 2021 – Spring 2025**
- B.S. in Computer Science and Computer Engineering . Expected Graduation Date: 06/2025.
- Undergraduate Coursework: Operating Systems; Databases (**MySQL**); Data Structures and Algorithms; Programming I (Object-Oriented Programming); Comp. Architecture; Calculus I; Calculus II; Statistics.

Projects

Distance Vector Routing Algorithm (C) (2024)
- Designed and developed the Distance Vector Algorithm from scratch using **C**. Utilized **UDP** as the transport layer.
- Decreased routing loops by **40%** using Poison Reverse, leading to a **30%** reduction in route oscillations.
- Achieved a **15%** reduction in network convergence time by tracking previous node states, resulting in a **20-second** speedup across all initial configurations.

Summer Camp App (JavaScript) (2023)
- Developed a robust **JavaScript** application for summer camp management, integrated with **Node.js** server infrastructure and **Express.js**, reducing processing time by **25 seconds.**
- Leveraged **MongoDB** flexible database architecture to increase data retrieval speed by **10%**.
- Crafted the application's user interface with a responsive and visually appealing design using **HTML** and **CSS**.

Ada Byron Hackathon (Python) (2023)
- Led the "Bits by Bits" team formation for the Ada Byron Hackathon, recruiting diverse members with complementary expertise.
- Achieved **3rd** place out of 12 teams in the 2nd year section by applying data structures & algorithms under 2 hours.

Skills

Languages & Frameworks
JavaScript, Python, C, Java, Spring Boot, MySQL, HTML, CSS, React, Express.js, Pandas, Numpy, Keras, PyTorch, Scikit-Learn, Cuda.

Databases & Tools
MongoDB, GitHub, GitLab, Linux, Node.js, GCP, Docker, Kubernetes, CI/CD, AWS, Nmap, Wireshark, OpenSSL.