DANIEL ARTURO LOPEZ

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EDUCATION

University of Maryland, College Park   Aug. 2019 - May 2023
B.S. Computer Science - Data Science Track
Minor Mathematics
GPA: 3.74/4.00
International Baccalaureate (IB) Diploma Recipient
Coursework: Object Oriented Programming, Discrete Structures, Advanced Data Structures, Algorithms, Linear Algebra, Machine Learning, Data Science, Database Design, Compilers, Real Analysis

University of Maryland, College Park   Aug. 2023 - May 2024
M.S. Computer Science
Combined MS/BS Program specializing in Computer Graphics, Visualization and XR Development

SKILLS

LANGUAGES: Java, C, C++, Python, JavaScript, HTML/CSS, SQL, Ruby, OCaml, Rust, MATLAB
TECHNOLOGIES: Unix/Linux, Oracle Database, Windows, Git, SVN, Pytorch, Keras/Tensorflow, Android Studio, Airflow, Snowflake, Docker, PostgreSQL
SPOKEN LANGUAGES: Spanish, English

EMPLOYMENT

Department of Computer Science at UMD, *Undergraduate Teaching Assistant*, College Park, MD   Aug. 2022 - Present
Teach advanced data structures concepts to upper-level undergraduate students enrolled CMSC420: Advanced Data Structures.

Computer Science Ambassador, College Park, MD   Jan. 2022 - Present
Serves as a representative of the Department of Computer Science at the University of Maryland, College Park, by leading Prospective Student and Academic Planning workshops, as well as providing tours of the Brendan Iribe Center for Computer Science and Engineering.

Tableau, *Summer 2022 Intern - Tableau Software Engineer*, Seattle, WA   May 2022 - Aug. 2022
Designed and implemented a containerized Slack application that contains an interactive notification allowing users to approve overdue applications for Tableau's internal agile development management platform to be used internally at Tableau. Implemented authentication through Okta AWS, storing user data in Snowflake and PostgreSQL, and deploying the application on the cloud to be used in an Airflow DAG. Stress load tested Bolt API framework and explored AWS deployment options including ECS and EKS.

Booz Allen Hamilton, *2021 Central Maryland Cyber Intern*, Annapolis Junction, MD   June 2021 - Aug. 2021
Worked on team of interns to research, build, and train multiple machine learning model to predict global location from an image. Model includes modules consisting of Linear Regression, Object Detection, and Image classification models that are built using Keras/TF and PyTorch. Conducted extensive research on text detection/recognition models. Presented research and findings to group of industry professionals and intern program.

Textron Systems, *Software Engineering Co-Op*, Hunt Valley, MD   Jan. 2021 - May 2021
Worked alongside a team of Engineers to establish requirements and design for military vehicle. Designed and implemented C++ Windows console application to simulate dynamic distributed algorithms for IP address allocation for a system of nodes in a mobile ad hoc network. Employed multithreading, socket engineering, and virtual machines. Tested initialization, routing, and partitioning protocols for ad hoc networks using ns-3, a network simulator.

Division of Information Technology, *Software Engineer*, College Park, MD   Mar. 2020 - Oct. 2020
Established project requirements and plans in cooperation with agile development team. Maintained and enhanced university's Payroll/HR web-apps and server-side utilities using J2EE, SQL, Spring Framework, HTML/CSS, AWS, and JavaScript. Developed and migrated batch job applications with Spring Boot enabling automated database updates and email verification into AWS with Docker implementation.

PROJECTS

Team BCIPRO   Apr. 2020 - Present
Honors Gemstone Team Research Project
Building a noninvasive brain-computer interface (BCI) to control prosthetic limbs, specifically a hand. Part of subitem that focuses on using ML and neural networks to process data received from EEG headset to translate to mechanical signals in a prosthetic. We have received IRB approval to begin collecting data.

Society of Hispanic Professional Engineers (SHPE)

Graduate Chair   June 2020 - Present
Former President of the SHPE-UMD chapter. SHPE is a national organization fostering Hispanic leadership in the STEM field. I led a 10-person executive board, supporting the 50+ students who are registered, active members within the SHPE national organization. In charge of spearheading professional, social, and fundraising events. Previously served as Technology Chair, renovated website using HTML/CSS. Currently serving as Graduate Chair.