DANIEL A. LOPEZ

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EDUCATION

B.S Computer Science, University of Maryland, College Park   August 2019 - May 2023
Minor in Mathematics
GPA: 3.74/4.00
Teaching Assistant for CMSC420: Advanced Data Structures
Relevant Coursework: Data Structures, Algorithms, Linear Algebra, Object Oriented Programming, Discrete Structures, Machine Learning, Data Science, Database Design, Compilers, Real Analysis

SKILLS

Languages	Java, C, C++, Python, JavaScript, HTML, SQL, Ruby, OCaml, MATLAB, C#
Software	Unix/Linux, Windows, MacOS, Unity, Git, PyTorch, Keras/Tensorflow, Snowflake, Docker, Oracle

EXPERIENCE

Tableau Software   May 2022 - Aug 2022
Intern - Tableau Software Engineer   *Seattle, WA*

- Implemented a containerized Slack application for an internal agile development tool allowing for user interaction.
- Enhanced app with authentication through Okta AWS, storing user data in Snowflake and PostgreSQL, and deployed the application on an AWS cloud service to be used in an Airflow DAG.

Booz Allen Hamilton   Jun 2021 - Aug 2021
2021 Central Maryland Cyber Intern   *Annapolis Junction, MD*

- Worked on team of interns to research, build, and train multiple machine learning models in Pytorch to identify image attributes including location and time of day to combat adversarial artificial intelligence (AAI) techniques.
- Conducted research on computer vision models and integrated optical character recognition (OCR) software into model.

Textron Systems   Jan 2021 - May 2021
Software Engineering Co-Op Intern   *Hunt Valley, MD*

- 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 by leveraging multi-threading, and socket engineering.
- Tested initialization, routing, and partitioning protocols for ad hoc networks on virtual machines and real hardware.

Division of Information Technology, University of Maryland   Mar 2020 - Sep 2020
Student Software Engineer   *College Park, MD*

- Maintained and improved Payroll/HR web-apps and server-side utilities using J2EE, SQL, HTML, and JavaScript.

RESEARCH

BCIPRO Gemstone Honors Team.   Building a noninvasive brain-computer interface (BCI) to control an upper-arm prosthetic. Trained neural networks to process data from EEG headset into mechanical signals. Currently building a VR simulation environment for training the prosthetic using Unity and C#. Winner of Do Good Initiative Award. Since 2020.

NASA Mixed Reality Exploration Toolkit (MRET).   Addressing how to stream large point cloud weather data into Unity while maintaining performance. Since 2022.

EXTRA-CURRICULAR ACTIVITIES

- **Society of Hispanic Professional Engineers (SHPE) - UMD Chapter.**   Current Graduate Chair and former President. SHPE is a national organization fostering Hispanic/Latino students in STEM. I led a 10-person executive board, supporting the 50+ active members within our chapter. I spearheaded professional, social, fundraising and outreach events.
- **XR Club.**   NASA SUITS Challenge Team Member and Selected Finalist. Participant in mixed reality workshops.