DANIEL ARTURO LOPEZ

EDUCATION

University of Maryland, College Park

Aug. 2019 - May 2023

B.S. Computer Science - Data Science Track

B.S. Mathematics - Statistics Track

GPA: 3.89/4.00

Gemstone Honors Research Program

Coursework: Object Oriented Programming, Discrete Structures, Algorithms, Linear Algebra, Machine Learning, Data Science, Database Design

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, Firebase, ns-3, Android Studio

SPOKEN LANGUAGES: Spanish, English

EMPLOYMENT

Booz Allen Hamilton, 2021 Central Maryland Cyber Intern, Annapolis Junction

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*, University of Maryland

Mar. 2020 - Oct. 2020

Established project requirements and plans in cooperation with agile development team. Maintained and enhanced university's Payroll/HR webapps 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 <u>interface</u> (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.

Spot-It Garbage Sept. 2019 - Jan. 2020

University of Maryland Baltimore County (UMBC) Annual 24-Hour Hackathon

Designed an android app allowing users to pin a location with litter/waste on a Google Maps display and submit details about the site. Used Java and XML to integrate a realtime Database and Cloud Storage through Firebase and the Google Maps API to provide a front-end experience.

AWARDS

International Baccalaureate (IB) Diploma Recipient, International Baccalaureate

May 2019

Dean's List, Dean of College of Computer, Mathematical, and Natural Sciences at UMD

Jan. 2022

Society of Hispanic Professional Engineers (SHPE)

President

June 2021 - Present

President of the SHPE-UMD chapter. SHPE is a national organization fostering Hispanic leadership in the STEM field. I lead a 7-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.