Piero F. Orderique

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www.pforderique.com /pforderique

Education

Massachusetts Institute of Technology
SB Computer Science
Expected: May 2024

GPA: 4.7/5.0

Society of Hispanic Professional Engineers, MIT Office of Sustainability Team, Sigma Nu Publicity Chair, MAES Vice President of Social Affairs, MBA, AI@MIT

Relevant Coursework:
Intermediate Algorithms & DS, Discrete Math, Physics EM, Technical Communication, Intro to Embedded Systems, Design Thinking, Lin. Alg. and Optimization

Columbus High School
Top 1%; Rank: 3
08/2016 - 05/2020

President: National Math Honor Society & Spanish Club
Vice Pres: Student Council | Captain: Swim Team

GPA: 4.723/4.0 | ACT: 35 | 16 AP Courses
400+ hours of community service and tutoring

Skills/Certificates

Programming
Most Experienced: Python, C++, Java

Familiar: JavaScript, SQL, VBA, R, HTML, CSS, LaTeX

Software + Tools
Flask, Socket IO, Excel, Git, ArcGIS, ROS2, Docker
NumPy, OpenCV, Matplotlib, Ubuntu Linux, jQuery
JIRA, Confluence, GitHub/GitLab

Certificates
LinkedIn: PyTorch Essentials, OpenCV, AI Foundations
Esri: GIS Basics, 3D Visualization, SQL Querying Data
IBM: Machine Learning with Python
Microsoft: Introduction to C++
HarvardX: Data Science R Basics

Distinctions

Gates Scholar
Facebook Above and Beyond Comp. Sci. Program
President's Volunteer Service Award
HSF Scholar, Stamps Scholar, Foundation Fellow
National Hispanic Scholar, National AP Scholar

Work Experience

Robotics Software Intern *06/2021 - 08/2021*
NVIDIA
- Optimized standard ROS2 packages to run faster on NVIDIA hardware using internal APIs rather than OpenCV (C++)
- Reinforced project stability by writing multiple unit and integration tests and benchmarking scripts (Python)
- Diagnosed and solved synchronization issues using time policy algorithms hidden in the implementation file (C++)
- Performed several code reviews and project doc. updates

Software Engineer *09/2020 - 05/2021*
MIT Office of Sustainability
- Research helped identify a potential $600M+ worth of damage to university property from flooding simulations
- Created custom functions (VBA) to enhance scalability
- Cut processing time in half by querying large datasets (SQL)
- Designed a Python package for reading and visualizing 300+ specialized data files using SciPy, matplotlib, and OOD
- Reduced space storage by 99.99% (from 1.1TB to ~1MB) by filtering large global datasets on a remote Linux cluster

Project Associate *11/2017 - 08/2020*
Borinquen Foods
- Built and implemented an Arduino security system
- Updated security systems and feedback on a budget
- Quadrupled the restaurant's Google reviews and increased market reach by creating Spanish advertisements on Canva
- Digitized checking accounts using Excel

Projects (see more at www.pforderique.com)

AI Tic Tac Toe -- Game *08/2021*
Developed an adversarial tic-tac-toe player using the minimax algorithm (JS) and used an FSM to keep track of game states

AirChat -- Messaging Web-App *06/2021*
Deployed a Flask backend for a chatting application on Heroku (switched from AWS EB) using socket.io (JS) and PostgreSQL

Path Finder -- Visual BFS Algorithm Program *01/2021*
Implemented a BFS algorithm (JS) to a visual 2D grid that finds a path from start to finish around user-made obstacles

Celebrity Feed Notifier -- Twitter Bot *02/2021*
Utilized a Python Twitter API to send detailed notifications to users whenever user-specified celebrities send tweets

COVID-19 ML Cases Predictor -- Data Visual *07/2020*
Designed a data visualization project (Python) with matplotlib using a COVID-19 database and used scikit-learn to run a polynomial regression on the data to show trends.

Paint Canvas -- Android App *06/2020*
Wrote code (Java) to publish a drawing app that can store width, color, and patterns using a kid-friendly UI