Piero F. Orderique

📞 706.987.3958   ✉ porderiq@mit.edu

💻 www.pforderique.com   in /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

Relevant Coursework:

Intro to Algorithms, Mathematics for CS, Physics EM, Multivariable Calculus, Oral Communication, Intro to Embedded Systems, Microeconomics, Design Thinking

Columbus High School

Top 1%; Rank: 3
08/2016 – 05/2020

President: National Math Honor Society, Spanish Club
VP: Student Council | Captain: Swim Team

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

Skills/Certificates

Programming

Most Experienced:
Python, C++, Java

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

Software

Flask, Socket IO, Excel, Git, ArcGIS, ROS2
NumPy, OpenCV, Matplotlib, Ubuntu Linux, jQuery

Certificates

Esri: GIS Basics, 3D Visualization, Querying Data
IBM: Machine Learning with Python
Microsoft: Introduction to C++
HarvardX: Data Science R Basics
UC San Diego: How Virtual Reality Works

Distinctions

Gates Scholar (<1% national acceptance rate)
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 (C++)
- Reinforced project stability by writing multiple unit and integration tests (Python)
- Set software improvement goals based on performance benchmarking scripts (Python)

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)
- Design 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)

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

Path Finder   *01/2021*
Visual BFS Algorithm Program
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   *02/2021*
Twitter Bot
Utilized a Python Twitter API to send detailed notifications to users whenever user-specified celebrities send tweets

COVID-19 ML Cases Predictor   *06/2020 – 07/2020*
Data Visualizer
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 - Free   *05/2020 – 06/2020*
Android App
Wrote code (Java) to publish a drawing app that can store width, color, and patterns using a kid-friendly UI