MARTÍN RODRIGUEZ

Recent Graduate with an M.Sc. in Electrical and Computer Engineering

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ENGINEERING/TECH EXPERIENCE

Quality Assurance Lead, Quality Assurance Tester

Plus QA

Jun. 2018 – Mar. 2022 | Portland, OR

- Worked with clients to develop comprehensive testing strategies and provide assistance to existing QA teams
- Performed quality assurance testing for mobile and web apps on a variety of platforms

Electrical Engineering Intern

Lam Research

Mar. – Dec. 2017 | Tualatin, OR

- Researched and developed methods of manufacturing and characterizing atomic force microscope probes using an electron microscope, leading to improved tool sensitivity and efficiency

Undergraduate Researcher

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Jun. – Sep. 2016 | Portland, OR

- Optimized neural network (reservoir computation) techniques in Python and MATLAB and applied a novel filtering algorithm to the output layer in reservoir simulations, increasing accuracy and reducing simulation runtime

Summer Intern

NASA Goddard Space Flight Center

Jun. – Aug. 2011 | Greenbelt, MD

- Designed orbit simulations in MATLAB, aiding in the nascent stages of the CubeSat modular satellite systems for use in education program

POSTER PRESENTATIONS

Rodriguez, M., Lipor, J.J., Mordensky, S.P., Burns, E.R., DeAngelo, J., 2024, The Advantages of the Kullback-Leibler Divergence as an Evaluation Metric for Geothermal Favorability Prediction with Machine Learning. Geothermal Rising Conference, Waikoloa, HI, 27–30 October 2024.

PROJECTS

Real-Time Tempo Detection with Harmonic-Percussive Source Separation via Median Filtering

EE 522: Discrete Time Processing Final Project, Portland State University

2022

Image Sorting and Sequencing using Canny Edge Detection and Hough Transforms

EE 513: Intro to Image Processing Final Project, Portland State University

2022

Early Detection of Forest Fires with Environmental Sensors, Computer Vision, and Deep Learning Techniques in Python and TensorFlow

Capstone Project, Portland State University/Intel

2019

SEEKING

A full-time research or engineering role in the signal processing and machine learning space

EDUCATION

M.Sc. in Electrical and Computer Engineering, Signal Processing and Machine Learning

Portland State University

Jan. 2021 – Dec. 2024

Thesis: Applying Positive Unlabeled Learning Techniques and Using the Kullback-Leibler Divergence to Improve Geothermal Surveying Assessments

B.Sc. in Electrical and Computer Engineering, Embedded Systems

Portland State University

Sept. 2015 – Sept. 2019

ACHIEVEMENTS

- **Lam Research Core Values Scholarship Recipient, 2017**
  Lam Research
- **Multiple Engineering Cooperative Program (MECOP) Intern, 2017**
  Portland State University
- **Research Experience for Undergraduates (REU) Student, 2016**
  Portland State University
- **Ronald E. McNair Scholar, 2011**
  PSU McNair Scholars Program
- **Oregon Space Grant Recipient, 2011**
  Oregon NASA Space Grant Consortium

STRENGTHS

Writing | Research | Bayesian Methods | Signal Processing | Machine Learning | Statistical Analysis | Embedded Systems | Sound Design | General Hacking

Python | NumPy | scikit-learn | OpenCV | librosa | Matplotlib | PyTorch | TensorFlow | C/C++ | Julia | MATLAB | bash | ARM/MIPS Assembly | LaTeX | Git | Jira

Ableton Live | TouchDesigner