Cora "Chanel" Richardson

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chanelrichardson.github.io

EDUCATION

Duke University, MSEE, Durham, NC   December 2021

Tufts University, BSCPE, Medford, MA   May 2020

SKILLS

Languages: MATLAB, C/C++ , Python, SQL, HTML, CSS, R (intermediate)

Python Libraries: Pandas, Geopandas, OpenCV, Pyspark, Scikit-learn, Keras

Computer: Linux, Git, Microsoft Office, AWS (S3, Lambda, EC2), REST APIs, Azure (intermediate)

EXPERIENCE

Metric Geometry and Gerrymandering Group, Researcher, August 2021-Present

- Build Python pipelines to gather partisan and geographic data about proposed districting plans
- Perform and design experiments regarding ensemble analysis in redistricting
- Contribute to client-facing meetings and describe technical processes to non-technical audiences
- Write analytical reports for clients in preparation for redistricting court cases

Oak Ridge National Laboratory, Quantum Networking Research Intern, Summer 2021

- Created a discrete event modeling framework for a quantum key distribution (QKD) network
- Researched integration of QKD network models with models of the electric grid

Tufts University, Image Processing Research Intern, Summer 2020

- Trained neural net to identify shots on a target
- Implemented multiple image processing techniques to solve detection problem with opencv in Python
- Worked with another student to put output into interactive format

Blue Origin, Avionics Intern, Summer 2019

- Configured the Simpy Python library for use in discrete event flight network simulator
- Programmed simulations of various network components including specialized routers and switches

Raytheon, Embedded Software Engineering Intern, Summer 2018

- Designed and implemented software in C to automate testing processes for FPGAs of various designs
- Implemented tests in a laboratory setting using basic lab equipment with company designed boards

AWARDS AND SCHOLARSHIPS

National GEM Fellowship, Full Fellow, 2020

Tufts University, Class of 1911 Prize Scholarship, 2020