Zachary Lawrence

(757) 968-3925 | mail@zacharylawrence.com | New York, NY

Work Experience

July 2019 - Present

Vera Institute of Justice
Data Science Fellow
- Cleaned and analyzed immigration court proceedings and ICE detention data
- Created static and interactive visualizations for internal and external partners
- Designed and implemented an AWS cloud solution for data collection and processing
- Assisted in creating a SEIR model simulating the spread of COVID-19 in ICE detention
- Introduced tools to improve collaboration and automation: GitHub, Docker, CI/CD

Nov 2018 - May 2019

Google.org Fellowship (partnering with the Vera Institute of Justice)
Software Engineer
- Collaborated with technical and non-technical external partners to build and maintain datasets and visualization based on US incarceration rate data
- Extracted tabular data from PDF/HTML/Excel to store in a structured SQL database
- Normalized data from multiple sources to enable cross-jurisdiction comparisons

July 2016 - Nov 2018

Google
Software Engineer
- Created a distributed data pipeline to process and render metrics to a dashboard
- Developed software for Linux and Chrome OS based video conferencing devices
- Scoped and designed a custom project for two interns managed over 3 months
- Mentored colleagues to improve code readability/health best practices

June 2015 - Aug 2015

Facebook
Software Engineering Intern
- Worked with the New Technology Team under the Connectivity Lab (Internet.org)
- Researched uses of various wireless protocols and IoT devices

Academic Research

Jan 2016 - May 2016

Audio Based Material Classification
Advised by Dr. Gilmer Blankenship, University of Maryland
- Researched and implemented signal processing and machine learning techniques for material classification based on an object's acoustic signature

Aug 2013 - Dec 2015

Sidewalk Accessibility Issue Detection (Human-Computer Interaction Lab)
Advised by Dr. Jon Froehlich and Dr. Kotaro Hara, University of Maryland
- Parsed Google Street View images with OpenCV to find sidewalk accessibility issues
- Visualized accessibility issues with Matplotlib, D3 and a custom Google Glass app

Technical Skills

Languages:	Java, Python, C, JavaScript, SQL
Software Platforms:	Linux, Robot Operating System, GCP/AWS
Software Frameworks:	Pandas, Distributed Data Pipelines, Matplotlib, Altair, HTTP APIs
Workflow:	Git/Github, Docker, IntelliJ, Agile/Extreme Programing
Hardware:	Raspberry Pi, Arduino, Zigbee/Z-Wave (Wireless Protocols), Circuit Design

Education

May 2016 Bachelor of Science, Computer Engineering
University of Maryland, College Park
Gpa: 3.8/4.0 | Dean's List (All Semesters)