

Adam M. Rahman

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EDUCATION

Wesleyan University

Sept. 2016 – May 2019

B.A. Computer Science, Theater; 3.36/4.0

Graduated May 2019; Patricelli Center Fellow; Deans' List Spring 2017

Relevant Coursework: Algorithms & Complexity, Computer Networks, Design of Programming Languages, Randomized Algorithms, Proseminar in Audiovisual Machine Learning, Patricelli Center Fellowship

Stuyvesant High School

Sept. 2012 – May 2016

High School Diploma; 94/100

Graduated June 2016; Highest Honors in Latin; Varsity Lincoln-Douglas Debate

WORK EXPERIENCE

IBM

July 2020 – Present

Staff Software Engineer

- Develops, executes, and maintains continuous integration and regression tests for IBM Z mainframe software components, including Docker containers running via IBM z/OS Container Extensions (zCX), IBM zCX Foundation for Red Hat OpenShift, and z/OS Management Facility RESTful APIs
- Conducts infrastructure orchestration for Continuous Integration test automation with Ansible and Jenkins to run health checks, load/stress tests, customer workloads across a series of on-premise mainframe test hardware and IBM Wazi as a Service virtual machines on IBM Cloud
- Develops and ports test utilities with Metal C, z/OS High Level Assembler, and Golang to exploit z/OS services for testing and run open-source tools like Grafana k6 natively
- Conducts daily monitoring and maintenance of mainframe test systems, including mounting filesystems, installing products including Conda, Nodejs, and OpenShift, and troubleshooting system dumps and traces in coordination with other developers and testers

Buildly

Sept. 2019 – Nov. 2019

Software Developer, Intern

- Implemented bugfixes, wrote unit tests, and refactored features for Buildly's Django backend in order to connect multiple microservices to a single endpoint, manage multiple databases, and incorporate self-documenting API specifications with Swagger UI
- Maintained end-to-end test suite for Buildly's frontend and backend with the Robot framework
- Communicated with CEO and CTO daily about product roadmap and development guidelines

Kite.com

Sept. 2019 – Nov. 2019

Python Code Curator

- Composed over 30 code samples with accompanying tutorials in Markdown, adhering to Python best practices to answer the most frequently asked programming questions
- Coordinated remotely with teammates across the U.S. to review and verify code samples

UNICEF

Dec. 2018 – Feb. 2019

Software Developer, Intern

- Implemented utilities to retrieve road networks for countries and compute distances between school and health facility coordinates extracted from large geospatial datasets
- Optimized algorithm performance to improve computation speed by hundreds of times across millions of geospatial points by researching and incorporating fast Python libraries
- Demoed pipeline to team members and published [road retrieval code](#) to UNICEF's official GitHub
- Provisioned a [Docker image](#) bundled with pipeline code and requisite libraries intended for Magicbox developers and data scientists

Kurani Architecture

June 2018 – August 2018

Software Developer, Intern

- Integrated Raspberry Pi sensor data and scraped content from TedEd and Khan Academy for "Aristotle", a prototype learning feed for classrooms and smart devices
- Collaborated with CEO on IoT implementation in learning spaces

Wesleyan Local Food Co-Op

Sept. 2017 – Feb. 2019

Programmer, Volunteer

- Implemented web and command-line utilities to retrieve Qualtrics survey data, compute share prices for participants, and output a spreadsheet for co-op coordinators to determine total shares and money owed per-person

PROJECTS

HeatTweets: Geocoding Fire Incidents in NYC

March 2020

Python, Twitter API, KeplerGl | github.com/msradam/NYCFireData

- Worked in a team to scrape, geocode, and map fire incidents from Twitter using Python and KeplerGl
- Presented at NYC's Open Data Week Hackathon "Can Data Start a Movement?" at Queens College, NY

Wesleyan Theater DesignerBase

Sept. 2019

Flask, TypeForm, Google Sheets API | github.com/msradam/wes-theater-designerbase

- Developed a Flask web app for student theater organizations at Wesleyan University, intended for production teams to easily seek out designers and maintain a Google Sheets database
- Integrated a TypeForm frontend with a Google Sheets backend to allow designers to register interest in design positions

Carceral Contagion: Incarceration Simulation

August 2019

Mesa, NetworkX, Python | github.com/msradam/carceral-contagion

- Simulated an epidemiological model of U.S. mass incarceration based on historical data, illustrating racial disparities and the infectious nature of imprisonment
- Modelled the population network with NetworkX graph data structures and implemented the frontend with the Mesa agent-based simulation library
- Project prototype earned Social Good Award + 2nd Place Crowd Favorite at Wellesley Hacks, Nov. 2017

Geospatial Routing API

July 2019

Scikit-learn, Django, Docker, OpenAPI | github.com/msradam/geospatial-routing-api

- Built upon my UNICEF internship project by implementing a geospatial distance calculation and road retrieval microservice with API endpoints to compute straight-line and routed distances between geographic coordinates and retrieve roads as graph data structures
- Implemented Django backend and OpenAPI server as a frontend and documentation for API calls

RESP: Responsive Emotional Support Protocols

June 2019

Node.js, Express, React, MongoDB | github.com/msradam/resp

- Implemented Express backend and React frontend with Typeform webhooks to check-in natural disaster survivors, store them in a MongoDB database, and query the Healthsites.io API for nearby facilities
- Winner of the IBM Call for Code Challenge at AngelHack Manhattan

TECHNICAL SKILLS

LANGUAGES	Python, JavaScript (ES6+), Java, C, Bash, Markup: HTML5, CSS3, Markdown
CONCEPTS	RESTful API Design/Integration, MVC Architecture, Agile
FRAMEWORKS	Docker, Kubernetes, Django, Flask, Express, React, Robot
TOOLS	Git, GitHub, IBM Cloud, Ansible, Locust, Grafana k6
DATA	PostgreSQL, GraphQL, MongoDB, DB2
TESTING	Unit, Integration, Regression, End-to-End, Load/Stress