Alexander Williams
Brooklyn, NY

https://alexanderwilliams.dev   williams_alex@pm.me

Software Engineer specializing in backend

SKILLS:

Javascript, Python, Ruby, React, Rails, Electron, REST, SQL, HTML, CSS, Semantic UI, SASS, Linux

PROJECTS:

Cruze, HackNYU, Drexel University   *March 8, 2020*

- Created a routing algorithm which utilized local bike infrastructure data to increase cyclist safety
- Created original weighted-routing algorithm, imported data from Open Data NYC, and utilized ArcGIS' REST API, won 1st Place Health & Sustainability and Best Sports Hack
  https://devpost.com/software/cruze

DirExit, DragonHacks, Drexel University   *February 22, 2020*

- Created a raspberry-pi fire exit sign, intelligently routing evacuees to unblocked exits
- Designed pathing with backtracking and lossy compression algorithms in Python, worked on final product integration and visualization, won 1st Place Overall and Best Data Analysis & Visualization
  https://devpost.com/software/direxit

MTA Status App, Flatiron School   *December 6, 2019*

- Created a CLI application with a partner which parsed real-time MTA train data to provide live status updates and provide the user with turn-by-turn directions to the nearest train station along with the trains and their statuses at that station. Created all API integrations and backend.
  https://github.com/Miss-Cheese/module-one-final-project-guidelines-nyc-web-111819

EDUCATION:

Flatiron School, New York City, NY   *November 2019 – March 2020*

- Full time, in person, 3 ½ month long intensive bootcamp
- Learned full stack software engineering

Northeastern University, Boston, MA   *September 2018 – April 2019*

- Majoring in Computer Engineering, Math, and Physics
- Currently on long-term hiatus, three years into a triple major B.S. degree

Bard High School Early College Queens, Long Island City, NY   *September 2014 – July 2018*

- Earned Associate of Arts degree alongside high school diploma

EXPERIENCE:

Web Developer, Valence Life Sciences   *May 2020 – Present*

- Creating a new modern web presence and digital strategy, building company website in React

Webmaster, Valence Life Sciences   *April 2018 – May 2020*

- Maintained and updated company web presence, SEO and conducted industry research

Algorithmic Researcher, Northeastern University Department of Mathematics   *February 2019 – January 2020*

- Studied high-dimension complex analytic singularities using Python, Sage Math and Singular, leveraged pseudorandom generation via a multistage stochastic Markov chain process
- Discovered family of polynomials with negative Lê cycles, created the first beta invariant algorithm

Safe Water Project, Code for Boston Brigade   *March 2019 – April 2019*

- Cleaned and analyzed decades of EPA water testing data using Python and Power BI for predictive statistical models forecasting contaminant-likely water sources to improve water quality and enforcement