Gregory Simpson

Amityville, NY
631.842.8758
gregorysimpson13@gmail.com

LinkedIn: linkedin.com/in/gsimp13 **GitHub:** github.com/gregorysimpson13 **Portfolio:** gregorysimpon13.github.io

>LANGUAGES AND TECHNOLOGIES

- **Proficient:** Python, Flask, C/C++, Java, JavaScript, Node.js, Express, Bash
- **Exposure:** Fastai, Pandas, Numpy, Pytorch Docker, Redux, Heroku, MongoDB, React, HTML5, CSS3, SQL

>PROFESSIONAL EXPERIENCE

Full S.T.E.A.M.E Ahead Laboratory | Software Engineer | Amityville, NY (remote) Aug 2019 - Present

- Developed Household Food Data application in Python, Flask and Heroku, providing a system to determine how many goods a household needs.
- Developed Black Business web application in Python, Flask and Heroku, MongoDB, React, providing access to a directory of black businesses

Sandia National Laboratories | R&D Software Engineer | Albuquerque, NM Aug 2016 - Aug 2019

- Built software to pan and tilt D3 JavaFX scene, built Java anonymous inner class for customer facing feature.
- Prototyped next generation simulation model using Python, C++, and Swig framework, prototype received funding for additional 4 months of future rounds of research and development.
- Chief architect in the enterprise CI/CD process, built and managed 8+ Docker images and integrated them into the CI/CD pipeline for the enterprise secure software development lifecycle, resulting in a 5 day production software delivery time decrease.
- Migrated compiler to C++ 11 from C++ 98 for ICADS project, resolving more than 100 issues and crashes from function deprecations and removals.

Charles Stark Draper Laboratory | Software Engineer, Intern | Cambridge, MA Jun 2014 - Aug 2014

- Led 2 software devs in resurrecting open source C++ LLVM library; open sourced and used for code conversion.
- Contributed to open source decompiler by designing an algorithm that converts goto statements into conditional loops in C++; LLVM used in production to analyze potentially malicious code.

>VOLUNTEER EXPERIENCE

Full S.T.E.A.M.E Ahead Foundation | Computer Science Teacher| Amityville, NY (remote) Aug 2019 - Present

- Created new front end web development curriculum for high school students interested in computer science using HTML5 and CSS3 to be used to teach 20+ students web development.

>EDUCATION

M.S. Computer Science, GPA 3.81, *North Carolina Agricultural and Technical State University* May 2016
B.S. Computer Engineering, GPA 3.54, *North Carolina Agricultural and Technical State University* May 2013

>PERSONAL PROJECT WORK

Plant Classification Using FastAI | Machine Learning Engineer August 2020 - Present

Vegetable classification using the fastai machine learning python library

- Using google search and bing api, download 300+ images of green capisum, cucumbers, and green apples to build a dataset similar to the one in the paper “Vegetable Classification Using You Only Look Once Algorithm”.
- Using the fastai python library and a convolutional neural network, achieve an accuracy of 95% on the validation set, a 32% increase compared to the whitepaper.

FinTrack | Software Engineer | code Oct 2019 - Nov 2019

Financial data collection application that tracks expenditures.

- Developed RESTful API storing financial data to track expenses in JavaScript, Node.js, Express, and MongoDB.
- Implemented authentication and authorization mechanism using JavaScript, Node.js, and OAuth.
- Crafted frontend views using reusable components built with JavaScript, React, CSS3, and Bootstrap 4.

>CERTIFICATIONS AND CERTIFICATES

Mathematics for Machine Learning: Linear Algebra, *Coursera* 2020
Certified SAFe 4 Practitioner, *Scaled Agile* 2017
Certified Scrum Master, *Scrum Alliance* 2016