

Johnny Sellers

Software Engineer

Software engineer with background in applied mathematics; experience in algorithm design, analysis, and implementation; contributions to open-source software; experience with web scraping, machine learning libraries, and data visualization; aptitude for problem solving and solution validation.

Contact Info

Website

<https://johnsell620.github.io>

E-mail

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Phone

919-744-9631

Skills

Languages:

C++	■ ■ ■ ■ ■
Python	■ ■ ■ ■ ■
PHP	■ ■ ■ ■ ■
SQL	■ ■ ■ ■ ■
JavaScript	■ ■ ■ ■ ■
Bash	■ ■ ■ ■ ■

Computation:

Matlab	■ ■ ■ ■ ■
NodePy	■ ■ ■ ■ ■
Clawpack	■ ■ ■ ■ ■

Data/Learning:

TensorFlow	■ ■ ■ ■ ■
Keras	■ ■ ■ ■ ■
Pandas	■ ■ ■ ■ ■

WebDev:

HTML5, CSS3	■ ■ ■ ■ ■
Sass, Susy	■ ■ ■ ■ ■
REST APIs	■ ■ ■ ■ ■

Frameworks:

React.js	■ ■ ■ ■ ■
jQuery	■ ■ ■ ■ ■
Bootstrap	■ ■ ■ ■ ■

Build Tools:

GNU Make	■ ■ ■ ■ ■
Gulp	■ ■ ■ ■ ■
Webpack	■ ■ ■ ■ ■

Database:

MySQL	■ ■ ■ ■ ■
phpMyAdmin	■ ■ ■ ■ ■

Experience

2014-2016

Engineering Technician

Monsanto Company, RTP, NC

- Enhanced data-acquisition software and procedures leading to improved diagnoses and reductions in downtime up to 30% for multiple automated-greenhouse processes.
- Operation and troubleshooting of SCADA systems for climate control, plant movement, and data acquisition automation lines.
- Provided key operational insight for process improvement.

2014

Associate Mechanical Engineer

Shipman Technologies, Inc., Durham, NC

- Lead engineer developing electric-powered bicycle components from customer specification.
- Headed re-engineering for manufacturability changes to materials and design, devised machining fixtures and assembly setups for high throughput, managed production scheduling.
- Maintained exhaustive documentation in accordance with ISO 9001 standards.

2013

Undergraduate Research Assistant

Micro/Nano Engineering Lab, Department of Mechanical and Aerospace Engineering, NC State University, Raleigh, NC

- Aided in experiment setup and literature review for project developing scalable mechanism for rapid, benign extraction of live HeLa cells from growth substrate via electromagnetic actuators.

Education

2019

University of Washington-Seattle, MS, Applied Mathematics

Focus in numerical analysis of initial boundary value problems with emphasis on algorithm analysis and implementation; high-performance computing - parallel, distributed, GPU computing; optimization.

2013

North Carolina State University, BS, Mechanical Engineering

Developed electromechanical system to move large-scale water purification system in capstone project.