

Objective

Looking to use my expertise in Physics, Software Development, and Leadership to contribute to a highly productive team. Looking to use technology to increase the amount of joy in the world.

Education

Colorado School Of Mines GPA: 3.74
Bachelor's Degree in Engineering Physics

Experience

Owner/Developer – Spectrum Interactive LLC (August 2023 - present)

- Developed the Spectrum Interactive Lighting Instrument (SILI), a DMX controller and SVG-based interactive visualizer for live music and other lighting control purposes. SILI is currently in use for live performances and music video shoots.
- Has provided services in physics consulting and math tutoring.

Python Developer, Team Lead – BioRad (June 2022 - August 2023)

- Led feature development on an AWS cloud-based web application with CICD
- Collaborated closely with the bioinformatics team to create interfaces, workflows and requirements
- Introduced a low-cost workflow for simultaneous development and cloud deployment of multiple release versions

Senior Research Scientist – Helmrich and Payne (June 2019 - May 2022)

- Worked collaboratively in a high-functioning team to develop algorithms for use in customer-facing software, including automated geosteering ([publication link](#))
- Analyzed massive sets of measurement data to develop new methods for stratigraphic geolocation, geologic visualization, and hazard reduction
- Spearheaded the creation of a flexible and scalable web application framework for prototyping
- Established coding standards and source code control workflows with consensus from the team

Systems and Software Engineer – Velentium LLC (August 2016 - April 2019)

- Developed and deployed manufacturing test systems for Facebook/Oculus
- Maintained and refactored large inherited codebases with divergent branches
- Worked one-on-one with clients to understand and respond to changing requirements in high-pressure manufacturing environments
- Interfaced with large cross-functional teams within the client organizations to coordinate expectations and meet customer/project needs

Qualifications

- Six + years of experience developing applications, algorithms, and APIs in Python.
- Three + years of experience developing web applications with React/javascript
- Experience with SQL and MongoDB, Flask, numpy/scipy, TensorFlow, Rust, MATLAB/Simulink, AWS
- Strong belief in the Agile philosophy of self-organizing teams, leveraging professional tools like Git and CICD, and writing self-documenting, modular, scalable code.