

Nathan Neibauer

Research Engineer

Passionate engineer and thinker dedicated to learning what it really means to be human. Champion of first-principles thinking, dissolving notions, and recalibrating our view of the world.

EXPERIENCE

Software Engineer (Data Visualization) - Contract

[Google](#) Jan 2019 - Nov 2019

- Wrote a visualization library that distilled 1TB of raw output data into a single-screen interface to streamline the experimental iteration cycle
- Condensed 50k graphs into 3 high-level graphs by highlighting the most important metrics for internal and external customers
- Designed and implemented refactor of legacy code to increase usability & modularity
- Committed 10,872 lines of unit-tested, peer-reviewed Python code to Google's codebase in 9 months
- Invited to present at Google Applied Sciences internal seminar

Sr. Optical Engineer

[MKS Instruments](#) Feb 2018 - Jan 2019

- Performed feasibility work for feature development
- Designed and implemented equipment communication library and automation framework in Python to reallocate engineering resources from manual data acquisition to solving optical engineering challenges
- Improved laser screening time from 10 engineer-hours to 1.5 hours and 0 engineers using automation library
- Invited to present on Python Lab Automation to engineering staff

R&D Engineer

[Alpha Ring US Inc](#) Oct 2015 - Jan 2018

- Designed and built numerous custom plasma physics experiments from scratch
- Helped acquire \$13 million in series A funding by packaging research data into compelling narratives to technical/non-technical VC investors
- Developed an analysis and visualization pipeline to churn out investor-ready charts and videos showing the presence and evolution of key experimental data
- Directed software team to develop LabView-based control system for main reactor
- Supervised interns working the laboratory and office
- Built and managed new lab space from the ground up

Independent Developer

Mar 2020 - Present

- Built a data processing and visualization pipeline for a colleague in a PhD program at Princeton studying ocean biochemistry
- Designed Jupyter-based UIs using custom, reusable widgets designed to manipulate, filter, and visualize scientific data
- Presented on "Colab for Collaboration" using this project as an example to 60+ tech professionals at BayPIGGies (Bay Area Python Interest Group) August 2020 meetup

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Lakewood, CO

SKILLS

Python Programming
Data Analysis
Data visualization
Experiment design
Laboratory automation
Scientific reasoning
Equipment calibration and troubleshooting
Public speaking
Technical writing
Courage in exploration

EDUCATION

MS - Applied Physics

[University of Oregon](#)

Oct 2015

BS - Engineering Physics

[Colorado School of Mines](#)

May 2014