

## SUMMARY

R&D Engineer with 5 years of experience in hardware, engineering, programming, and manufacturing. Possesses a strong ability to work collaboratively with teams and lead projects, with high attention to detail and analytical efficiency. Seeking to leverage professional industry experience and knowledge as a data science fellow, focused on utilizing various ML techniques and advanced statistical analysis to gain business insights pivotal for company success.

## SKILLS

**PROGRAMMING LANGUAGES:** Python, R, SQL, SCPI (Hardware Programming), HTML, CSS, LabVIEW, Arduino C++

**MACHINE LEARNING:** PCA, GLM, Random Forest, XGBoost, Support Vectors, K-means Clustering, Time Series, Ensemble Modeling, Neural Networks (CNN, LSTM, BERT), Natural Language Processing, Hyperparameter Tuning

**FRAMEWORKS & PACKAGES:** Tensorflow, Keras, PyTorch, R Shiny, Plotly Dash, Flask, Scikit-Learn, Scikit-RF, NLTK, NumPy, Pandas, Polars, Dask, Matplotlib, Seaborn, Plotly, Bokeh, Statsmodels, SciPy, Hugging Face Transformers

**TOOLS & DBMS:** R Studio, Docker, MySQL Workbench, Jupyter, Git, VS Code, PyCharm, Excel (Advanced), Firebase, Google Cloud Platform, Confluence, JIRA, Grafana, Netsuite, Pagerduty, Google Analytics, Mode Analytics, Tableau

## PROFESSIONAL EXPERIENCES

### NYC Data Science Academy

*Data Science Fellow*

New York, NY

Sep. 2022 to Mar. 2023

- Developed a [trading analytics technique](#) utilizing natural language processing sentiment analysis to drive alpha strategies in ~5M scraped tweets, producing returns 10-20% higher than the traditional SMA crossover benchmark.
- Drove [data-driven insights](#) through various modeling techniques, such as: Lasso, SARIMA (timeseries), SVR, and tree-based models to predict and forecast accurate housing prices, developing effective home-flipping strategies.
- Explored [consumer behavior trends](#) associated with AirBNB & travel in order to identify and implement innovative marketing strategies that businesses and hosts can adopt to remain competitive during economic downturns.
- Conducted a [comprehensive analysis](#) of YouTube video analytics to uncover consumer marketing behavior, identify global buying trends, and discover which type of products is most impactful for certain regions / consumer groups.
- Deployed 3 interactive dashboards using Python Dash & R Shiny: translated & visualized complex datasets to break down information, allowing users to predict trends and visually compare. See dashboards [here](#), [here](#), and [here](#).

### Rigetti Computing

*R&D Engineer*

Berkeley, CA

Mar. 2018 to Current

- Designed a python-based script utilizing SCPI to automate a switch matrix, classifying devices as pass/fail and auto-generating an HTML report, resulting in an 80% reduction in manual testing time with a 98% accuracy rate.
- Programmed an automated python script that pinpointed device characteristics (eg. resonant frequencies and reflection peaks), and generates a detailed characterization summary, delivering a 90% reduction in analysis time.
- Developed and deployed a sophisticated spreadsheet-based automation tool for contingency planning, increasing visibility for wiring schematics, automatically generating bills of materials, and tracking moving components.
- Led deployment planning for 15+ systems across 3 facilities spanning 2 countries: design comprehensive wiring schematics, audit bills of materials for procurement, and provide manufacturing hands-on support, as necessary.
- Collaborated with 5 cross-functional teams and 2 external vendors to identify improvement areas for existing R&D components and implement design-of-experiment prototypes to enhance their performance and efficiency.

## EDUCATION

**University of California, Santa Barbara**

B.S. Chemistry 2017