

Darren Sholes

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WORK EXPERIENCE

Klimate Consulting

July 2024 – Present

Data Science Consultant

Berkeley, CA

- Synthesized open data into actionable insights and visualizations to inform targeted investment of energy efficiency programs funded by US Department of Energy (DOE)
- Leveraged Conformalized Quantile Regression to develop a new energy benchmarking system for commercial building sector using open data (CBECS) from the Energy Information Administration
- Built models to quantify how weather impacts energy consumption across conditional distributions in the commercial building sector

Liminal Insights

July 2022 – July 2024

Software Engineer

Emeryville, CA

- Collaborated cross-functionally with the Data Science team to turn raw ultrasound data into machine learning insights for battery manufacturers.
- Designed, built, tested and shipped real-time results export service to automatically send ML insights to customer cloud REST API and gigafactory MES as battery cells were scanned at-line
- Refactored data models and how our binary data, metadata and ML results were being stored on-tool to reduce maintenance and storage costs in AWS
- Mentored entry-level SW and Data Science team members and summer interns
- Built automated calibration system for our high resolution inspection system, RASTER
- Refactored data cleaning algorithm to remove dead signals on data ingestion with negligible impact to throughput
- Migrated our SW from python 3.7 to 3.11 with minimal disruption to SW and Data team's workflow
- Started tracking SW team technical debt and was SW point of contact for technical debt task force

Freelance (Root Change)

April 2021 – July 2022

Data Science Consultant

Berkeley, CA

- Worked with Director of Learning to define KPIs and MVP requirements for Social Network data dashboards in an international development context
- Built python tools with `pandas`, `numpy`, `networkx` and `plotly` to turn structured social network data into beautiful, interactive reports for non-technical audiences

LoopSketch

May 2021 – March 2022

Founder

Berkeley, CA

- Founded a company to build better remote music collaboration software
- Won New Venture Challenge Newcomer pitch competition and completed CatalyzeCU accelerator program
- Conducted over 30 customer development interviews to find product market fit and signed up over 50 beta testers
- Designed and built MVP using `react`, `electron`, `fastapi` and AWS

PhD Student

August 2020 – May 2021

CU Boulder, ATLAS Institute

Boulder, CO

- Research at the intersection of music technology, social neuroscience and machine learning

Nanosatellite Engineer

December 2017 – February 2020

Fraunhofer EMI

Freiburg im Breisgau, Germany

- Designed, built and tested nanosat mechanical subsystems
- Inherited a de-orbit system project and took it from non-functioning prototype to protoflight model in 12 weeks to successfully launch aboard Rocket Lab It's Business Time Electron Rocket

- Developed Python tools for simulation of satellite orbital and attitude dynamics and analysis of shock and vibration data

Research Engineer

Lawrence Berkeley National Laboratory

January 2016 – August 2017

Berkeley, CA

- Designed, built and tested novel low-emission combustion technology (patent pending)
- Developed computer vision tool for analyzing Particle Image Velocimetry data
- Built software tools and developed statistical methodologies for analyzing large industrial data sets

Lead Design Engineer

LightManufacturing Systems

September 2013 - March 2014

San Luis Obispo, CA

- Designed, built and tested solar concentrators for rotational mold manufacturing start-up

EDUCATION

University of California, Berkeley

M.S. Mechanical Engineering

August 2014 – December 2015

Berkeley, CA

Cal Poly San Luis Obispo

B.S. Mechanical Engineering

September 2009 – December 2013

San Luis Obispo, CA

SKILLS

Languages:

Python (10 years), SQL (5 years), JavaScript (5 years), TypeScript (1 year);

Data Stack:

numpy, scipy, pandas, scikit-learn, networkx, statsmodels, matplotlib, plotly, seaborn, dash, mapie, jupyter;

SW Stack:

git, bash, docker, postgres, redis, pydantic, fastapi, flask, pytest, asyncio, AWS (S3 and Lambda);

Frontend Stack:

react, mui, d3, Figma;

Communication:

Technical writing, Software Design and Requirements Documents, conference and journal papers, executive summary of findings, public speaking, technical presentations, product pitch experience;

Team+Collaboration

Feedback from a former colleague upon leaving Liminal Insights:

I really value your ability to ask probing questions in a curious way, your ability to come up with clean and simple designs, even when the domain is really complex, and your ability to move the conversation forward when it gets stuck...I think that you're also really great at navigating the personal side of software development, and I feel privileged to have absorbed some of that from our time together.