SUMMARY

Engineer on a mission to combat climate change through Python. 5+ years of engineering experience in measuring project metrics, identifying trends, and tackling complex issues. Expertise in quantitative statistics, SQL, and other technologies, leveraging problem-solving skills, attention to detail, and crossfunctional collaboration to achieve team goals.

SKILLS

FRONT END DEVELOPMENT | HTML • CSS **BACK END DEVELOPMENT | Python • MATLAB** MISCELLANEOUS | SQL • Google Colab • OpenCV **SOFT SKILLS** | Leadership • Bias for action • Deliver results

EXPERIENCE

CLIMATEBASE

Fellow | Mar 2024 - Present, Remote

Expanding access to Natural Organic Reduction in Virginia

 Validated and compared CO₂ emission data for various funeral methods through published literature, LCA reports, and interviews

Geospatial foundation model for image recognition

- Conducted literature review on leading papers on remote sensing and foundation AI models
- Explored NASA ARSET and Climate Change AI training

HALEY & ALDRICH

Project Manager | Oct 2021 - Present, Walnut Creek, CA Avia Lab's automated groundwater level monitoring system

- Ideated and developed real-time groundwater data screening, processing, and reporting tool with Jupyter Notebook and Geokon API
- Led technical and back-end coordination between Engineering Field Services and Data Analytics & Visualization teams
- Practiced lean project mgmt. and achieved an NSR of \$577k and NEM of 3.4.

SF soil type predictor

• Developed a field logging tool using supervised learning on the SF Bay Area soil data with ~90% accuracy to identify soil types

CPT plot data digitizer with Computer Vision

• Implemented OpenCV to digitize PDF plots for scaling data algorithmically, replacing tedious Excel spreadsheet for engineering analysis

AMERICAN ENGINEERING TESTING

Geotechnical Engineer | 2014 – 2021, St. Paul, MN

Aurora solar tracker frost monitoring

 Investigated solar tracker pile frost-jacking issues using field instrumentation, analyzed climatic data, and prepared technical reports to refine design parameters for frost uplift.

EDUCATION

UNIVERSITY OF ILLINOIS -URBANA-CHAMPAIGN (UIUC)

MSc, Civil Engineering | 2014

UNIVERSITY OF MINNESOTA -TWIN CITIES (UMN)

BSc, Civil Engineering | 2011

HONORS & AWARDS

ACEC/MN ENGINEERING **EXCELLENCE AWARD | For**

honoring exceptional, innovation, creative problem-solving engineering projects | 2021

NSF GRADUATE RESEARCH FELLOWSHIP | Honorable Mentioned | Top 30 percent of applicants for the competition | 2020

LICENSES & **CERTIFICATES**

Digital Image Processing Machine Learning **Applied Statistics** Fourier Series and Partial D.E. Finite Element Analysis Geo-structural Instrumentation

Professional (Civil) Engineer in MN (2016); CA (2022)

INTERESTS

Sailing • Climbing • Coffee • Selfimprovement • Foreign Affairs