Liang Chow, PE

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SUMMARY

An engineer on a mission to combat climate change through Python, with over 5 years of engineering experience in measuring project metrics, identifying trends, and tackling complex issues. Expertise in quantitative statistics, geotechnical instrumentation, and leveraging problem-solving skills, attention to detail, and cross-functional 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 CO_2 emission data for various funeral methods through published literature, LCA reports, and interviews

HALEY & ALDRICH
Geotechnical Project Manager | Oct 2021 – Present, Walnut Creek, CA
Napa Valley reservoir water level forecast
- Performed time-series analysis on 43-year of historical data to backfill 3-year of data gap
- Prepared annual instrumentation monitoring for Division of Safety of Dams

Avia Lab's automated instrumentation monitoring system
- Ideated and developed real-time vibration, groundwater, inclinometer data screening, processing, and reporting tool with Jupyter Notebook API
- Led technical consultation 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

GEOAI CHALLENGE 2024 | Second place, Amazon Basin Secret Runway Detection Challenge using satellite images | 2024

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
Finite Element Analysis
Geo-structural Instrumentation
Fourier Series and Partial D.E.
Vibration and Waves

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

INTERESTS

Sailing • Climbing • Coffee • Self-improvement • Foreign Affairs