
PROFESSIONAL EXPERIENCE

- | | |
|---|---------------------|
| Gigglebot.app, Founder & CEO | Mar 2025- Current |
| <ul style="list-style-type: none">• Created iOS app for low-latency AI image & video generation with diffusion ML models• Research on accelerating inference through post-training optimization• Full-stack development with Python FastAPI, Docker, and GCS backend, Swift frontend | |
| Tesla, Staff Machine Learning Engineer | July 2023- Feb 2025 |
| <ul style="list-style-type: none">• Implement microservice-based electricity forecasting driving >\$120MM annual trading PnL• Design & deploy market-tied optimization models for Virtual Power Plants of 10k+ devices• Redesign Powerwall optimization engine (Opticaster) to allow 10-100x speedup and unlock 10-year modeling of NEM 3.0 / NBT rate case, results presented to CPUC• Collaborate with business stakeholders to define VPP product roadmap and engineering priorities across US, Australia, and EU electricity markets | |
| Teza Technologies, Portfolio Manager and Quantitative Researcher | 2018-2023 |
| <ul style="list-style-type: none">• Develop, deploy, and manage ML forecasting models in a Python + Java stack• Portfolio Manager for \$100-200M in assets with 1.1-1.4 Sharpe with fully systematic algorithms powered by statistical and deep learning models using market and alternative data• Manage production software operations and test-driven development process (Python stack)• Managed team of 3 PhD researchers developing new signals, including hiring/firing• Define Investor Relations and Marketing strategies for new products | |
| PhD Student, UC Berkeley | 2013-2018 |
| <ul style="list-style-type: none">• Research privacy-preserving optimization techniques for federated machine learning• Apply Convex optimization techniques to sizing, siting, and bidding of energy resources• Forecast electricity prices and demand using machine learning tools• Model secure decentralized optimization using blockchains and smart contracts | |
| Lead Consultant, North American Electronics Practice, Sphera/Thinkstep | 2009-2013 |
| <ul style="list-style-type: none">• Managed team of 4 researchers across EU, US, and APAC offices• Presented results to Fortune 100 C-level executives• Technical sales and business development | |
| • Product Design Laboratory Manager, Olin College | 2007-2008 |

AWARDS

- | | |
|--|-----------|
| • Winner, Citadel/Correlation One International Data Open Championship | 2017 |
| • Winner, Wanxiang Global Blockchain Challenge | 2017 |
| • 2nd Place, SF10x Hackathon | 2025 |
| • 2nd Place, SF Climate Week 2025 Hackathon | 2025 |
| • National Science Foundation Innovation Corps awardee | 2017-2018 |
| • National Science Foundation Graduate Research Fellow | 2015-2018 |

EDUCATIONAL BACKGROUND

- | | |
|--|-----------|
| • PhD in Civil & Environmental Engineering, UC Berkeley | 2013-2018 |
| • B.S. in Mechanical Engineering, F.W. Olin College of Engineering | 2004-2008 |

POSITION-SPECIFIC SKILLS

- Machine Learning / Data Science, Convex Optimization, and Optimal Control algorithms
- Python: Machine Learning (pytorch, huggingface, transformers, diffusers), data science, web apps
- R, Javascript, SQL/PostgreSQL: functional proficiency

PUBLICATIONS

- “Cybersecurity in Distributed and Fully-Decentralized Optimization: Distortions, Noise Injection, and ADMM” (Munsing, Moura) arxiv.org 2018
- “Data-driven Chance-constrained Regulation Capacity Offering for Distributed Energy Resources” (Zhang, Hu, Munsing, Moura, Song) IEEE Transactions on Smart Grid 2018
- “Using Ethereum for Secure Decentralized Optimization” Ethereum Devcon 3 technical talk 2017
- “Optimal Sizing and Dispatch of Transmission-Scale Storage Systems” (Munsing, Berger, Moura) Applied Energy (*whitepaper*)
- “Flexibility Estimation in Consumer Electricity Consumption”, (LeFloch, Munsing, Moura) Applied Energy (*whitepaper*)
- “Blockchain Microgrids: Decentralized Optimization and Energy Markets” (Munsing, Mather, Moura) Conference on Control Technology and Applications 2017
- “Robust Cournot-Bertrand Equilibria in Power Networks” (Mather, Munsing) American Controls Conference 2017
- “Optimal Design of Dual-Reservoir Energy Storage System Through Particle Swarm Optimization”, (2016) PowerMEMS Conference
- “A Modular Approach to LCA: The Process and Results Applied to Hewlett-Packard’s Imaging Products” (Etheridge, Koffler, Munsing) ACLCA Conference 2013
- “Cutting the Costs of LCA: The Case of Laser Printers” (Lodal, Munsing, Saraev) ACLCA 2012
- “Developments in Impact Assessment Tools for the Electronics Industry” (Munsing, Herrmann, Canepa) ACLCA Conference 2010
- Cover Editor, Journal of Industrial Ecology, 2012-2014

ENTREPRENEURSHIP

- | | |
|--|------|
| • Technical Co-Founder, EcalCharge electric vehicle charging startup | 2017 |
| • Founder, ski binding equipment maker, Switchskis | 2016 |
| • Co-Founder, full-stack developer, Mycarbonoffsetter | 2016 |

LEADERSHIP & COMMUNITY ENGAGEMENT

- | | |
|--|--------------|
| • Organizing Member, GreenerMind Summit | 2014-present |
| • Board member, Duboce Triangle Neighborhood Association | 2023-present |
| • San Francisco Energy Discussion Forum leadership team | 2022-present |
| • Direct 100+ volunteers and team leads in weekly events with Clean Up The City SF | 2022-present |

OTHER

- Fluent in German (spoken and writing), beginning comprehension in Russian (spoken and writing)
- Backpacked the Pacific Crest Trail, a 2700-mile hike from Mexico to Canada
- Organized and led a mountaineering expedition to climb Denali (Mt. McKinley)
- Converted an old FedEx van into a tiny home and spent two years living in it while working remotely