



Will Draffin

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INTRODUCTION

I am passionate about Energy, Climate, and making an impact. I am excited by new technologies, and have worked in distributed Energy Storage, Solar, Electric Vehicle Charging, Power Grid Infrastructure, and Smart Home Management.

I am motivated by a sense of productivity, and comparative advantage as my time is the most valuable asset I have. I enjoy finding purpose, breadth, and novelty through work, and thrive in complex environments where I can problem solve.

I just arrived in China, as the global leader in many new energy and product technologies.

I am connecting with companies and colleagues to offer my assistance through contract work, or a long term career opportunity.

TESLA

At Tesla, I focused on residential energy product architecture and technical strategy. Depending on the state of the business and my team composition, my focus shifted among architecture, design, manufacturing, new product introduction, applications, and service.

My work can be most easily described as a Technical Product Manager, supporting (1) New Products, (2) New Features, and (3) New Markets

Tesla - New Products

San Francisco, CA, / Reno, NV USA

Energy Storage - Powerwall

2014 - 2024

- I was the longest, and most involved engineer on the Powerwall Product Line from before the program began. I was the first firmware engineer for the on-board DCDC converter.
- From 2014 to 2017 I led Partnerships between the HVDC Powerwall and 3rd party inverters (SolarEdge, SMA, Delta, and others)

Energy Storage - Gateway

2014 - 2024

- Led technical architecture for the "Gateway" product lines. These products provide electrical connections, islanding disconnect, metering, and compute for site controls
- Oversaw and guided the "Meter Socket Adapter" program, which unlocked 4 hours of installation time savings per residential install. This involved product design itself, considerable compliance effort (including helping propose new standards), utility adoption (including hosting witness-tests, workshops, and pilots), and complex rollout management

Energy Storage - Metering

2018 - 2024

- Led architecture, specifications, and features for variety of metering platforms, including built-in metering, standalone meters, and partners (including Neurio)

Solar - Inverter

2020 - 2024

- I led system integration between Energy and solar product lines, including features like off-grid curtailment, motor starting, solar peak shaving, self-consumption, and non-export

Charging - Wall Connector Mobile Connector

2018 - 2024

- I led integration efforts between Wall Connector other energy products (Powerwall, Solar), and led the architecture for more advanced features like metering and bidirectional power

Energy Storage - CyberTruck

2022 - 2024

- Led Technical architecture and strategy for bidirectional power outside of the vehicle (Mobile outlets, home backup, V2H, V2G)
- "Energy Consultant" for on-board power, including leading specifications and strategy for high voltage distribution and outlet design

Other

2014 - 2024

- I supported many other unusual projects that were connected to residential energy, including a few projects with Autopilot, SpaceX, and Boring Company

Tesla - New Features

San Francisco, CA, USA

- I acted as the primary subject matter expert for features related to system integration, including off-grid controls, battery/inverter compatibility and stability with vehicle charging
- I led Metering features, including accuracy, accumulation, and the associated control system response to changes in telemetry
- I managed validation planning for new features, and sometimes helped build out test infrastructure to facilitate continuous integration
- I supported fleet analytics and feature release monitoring, including doing A-B testing, and building pipelines to qualify performance in the field

Tesla - New Markets

Worldwide

- I led localization efforts for translations, including managing regional reviewers, and designing features such as address formatting
- I supported feature development for region specific requirements, such as machine inertia in Australia, high resistance grid connections in Italy, custom anti-islanding in Japan, and non-export in Hawaii
- I led utility adoption efforts, such as utility specific settings and standards
- I worked closely with, and often visited markets around the world as we prepared for, and began market launches

INTERNSHIPS & OTHER

- Garmin - Aviation Communication - Validation & Certification KS, USA
- DOE - Energy, Environment, Health & Safety - Project Proposals & Contract Reviews DC, USA
- NIST - Wind / Weather Data Analytics for Construction Standards MD, USA
- Cancer Genetics - Wet Lab Research MD, USA
- Volunteering - Disaster Response, Lifeguard, Youth & Homeless Programs, ...

EDUCATION

Georgia Institute of Technology (GaTech)

Atlanta, GA, USA

M.S. Electrical Engineering

2013-2014

- Specialized in Power Electronics & Control Systems
- Energy Club Leader - Hosting tours, conferences, and lectures

Washington University (WashU)

St. Louis, MO, USA

B.S. Computer Science & B.S. Computer Engineering

2009-2013

- Specialized in Embedded Systems - Senior project: HVAC controller
- Considerable breadth of education, from Nano-fabrication to Glass-Blowing to Taoism
- Significantly contributed to the school, including Teaching Assistant, Tutor, Tour Guide, Interview panel for Dean & professors. Created new classes, Corporate sponsorships, and student-faculty partnerships.
- Featured in school newspapers, and provided 1 of 8 "Excellence in Leadership Awards"
- Leader in Engineering Student Council, Engineers without Borders, ACM, IEEE, and more

SKILLS

- Programming languages: Python, C++, Javascript, Go, SQL
- Software skills: Data Analytics, Modeling,
- Other skills: Product Management (New Features, New Products, New Markets), Project Management (Contracts), Program Management (JIRA, prioritization, etc)
- Quick Learner: Passionate to explore new tools (e.g. Resume made with Chinese AI tools & LaTeX)

INTERNATIONAL EXPERIENCE

- **United States:** Citizen. Fluent English Speaker. Residence in Washington DC San Francisco
- **China:** M Visa for 2025-2026. Studying Chinese. Established housing, bank, phone, accounts, etc.
- **Mexico, Spain, Latin America:** Many professional and personal trips. Intermediate Spanish
- **Other:** Business trips to Germany, Netherlands, Italy, Canada, Austria, Israel, UK, Australia, and all over the US. Travel to ~35 countries. Excited to relocate and travel.