

# DAVID OUYANG MOENCH

<https://davidmoench.com>

**Skills:** Applied + Computational Math, Python, Jupyter, NumPy, PyTorch, Scikit-learn, UNIX, Bash, Git, Javascript, React, Ruby/Rails, Golang, AWS, PostgreSQL, Docker, GraphQL, D3, Vim

**Github:** <https://github.com/domoench>

## EDUCATION

[2021 – 2023] **M.S. in Applied and Computational Math. *Johns Hopkins University*.** GPA: 3.96.

[2012 – 2014] **B.S. in Comp Sci. *University Of Texas at Austin*.** GPA: 3.98. Phi Beta Kappa.

[2005 – 2009] **B.A in Music. *Wesleyan University*.** Graduated with honors.

## EXPERIENCE

[06/2022 – 09/2022] **Graduate Research Assistant. *RESET Lab at UT Austin* – Remote**

- Developed and validated vehicle energy requirement models with UT professor Sergio Castellanos as part of RESET lab's ongoing research into transit bus fleet electrification in Mexico City.
- Tools: Jupyter, NREL's FASTSim, Python, NumPy, Pandas

[05/2019 – 05/2021] **Senior Software Engineer. *Kickstarter* – NYC**

- Worked on the payments team leading full stack technical projects from compliance with regulatory changes like KYC and SCA to frontline support remediating mission-critical incidents.
- Tools: React, Ruby/Rails, Sorbet, Typescript, MySQL.

[02/2019 – 05/2019] **Freelance Fullstack Software Engineer. *Joro* – Remote**

- Worked on the early-stage architecture and implementation of Joro's mobile apps. Designed and implemented the carbon offset subscription backend. Other miscellaneous full stack and devops responsibilities: Automating the CI and deployment pipeline, API design, DB migrations, website maintenance.
- Tools: React / React Native, Stripe / Plaid, AWS, CircleCI.

[1/2015 – 3/2017] **Software Engineer. *Datadog* – NYC**

- Contributed to all levels of the application stack, from streaming metrics ingestion (millions of data points per second), backend service scaling, and DB migrations, to frontend real-time d3 graph visualizations and UI features. Implemented the metric metadata system, used for displaying units in visualizations. Member of the ops 24/7 on-call rotation. Conducted engineering interviews.
- Tools: Golang, Python, Javascript, PostgreSQL, Redis, Consul, AWS, Linux, Looker, Pagerduty.

[3/2017 – 1/2019] ***Blubox* – Baltimore, MD**

- Designed and built a tiny house out of structural insulated panels. <https://blubox.house>.

[2014] **Research Assistant. *UT Austin Computational Visualization Center* – Austin, TX**

- Obtained funding, conducted research, and implemented a software tool with Python and Matplotlib for use by neuroscience researchers to visualize neuronal connectomics data acquired through fMRI.

## MISC

**Volunteering:** Girls Who Code teacher at Urban Assembly Unison School in Brooklyn. Fall 2017.

**Interests and Hobbies:** Sustainability, music composition, design + construction, guitar, journalism

**Language:** Elementary Chinese