

A substance-focused senior leader of machine learning and cross-functional teams for 12 years in areas spanning on-device algorithms, cloud services, human-in-the-loop operations, and data science. I'm a systems-thinker that bridges organizations, products, and technology.

- Education
- *Ph.D.* (2011) — Signal Processing, Electrical Engineering — **Rice University**
 - *B.S.* (2005) — Computer Engineering — **University of Illinois Urbana-Champaign**

- Professional Experience
- Lyft, Inc.**
- General Manager, Head of Lyft Mapping* October 2024 – April 2025
- I am the interim general manager of Lyft Mapping leading ~150 team members across 3 US and 4 international sites. My team is a cross-functional mix of 6 senior managers in engineering/science, product, and operations. Mapping is a foundational platform powering most areas of Lyft with core products like ETA and distance estimation for pricing, the in-house turn-by-turn navigation used by drivers, and the “ride experience” from pickup locations to ride journey.
- Expanded mapping org mandate by partnering with ads business unit.
 - Organized team charters around product outcomes and laid groundwork for site consolidation.
 - Established new growth opportunities for senior managers by growing our mandate and by deepening partnerships in other orgs that needed our ops expertise.
 - Increased ship velocity via experiment bundling and processes that bias to “real world impact.”
 - Drove a focus on quality that led to >5% improvement on sentiment metrics QoQ.

- Principal Engineer, Lyft Mapping* 2022 – Present
- I am effectively the “CTO of Lyft Mapping” and lead the org’s technical direction and strategy including the navigation product, ETA and routing services, and real-time data services (traffic, closures, real-time feedback). I am the glue between teams and projects, reduce cross-team dev silos, and identify investment opportunities. I am also a founding member of the “Lyft CTO-council” that aligns engineering and ML norms across Lyft.
- Leader of tech investments that led to our in-house nav app powering most Lyft rides.
 - Pivoted our ETA and routing approach, leading to increased ETA accuracy, increased driver hours, and a more consistent and delightful product, all while reducing complexity. Efforts led to a 4.5% reduction in tail ETA errors and a 2%-4% reduction in unsafe driving behaviors.
 - Drove re-abstraction of nav logic to increase test atomicity and quality of tail experiences.
 - Uplevelled managers, directors, and senior ICs within team and company-wide. Responsible for onboarding new execs to mapping. A sought after mentor and unblocker by all levels and roles, including product, science, engineering, and BD. Responsible for aligning with leadership on key success metrics and KPIs.
 - Key driver of external partnerships.

- Senior Staff Software Engineer, Map Data* 2020 – 2022
- I built and led four teams around map data in areas of data collection, machine learning, human-in-the-loop tasking, and map serving. The teams spanned across 1 US site and 3 sites internationally with 50-70 contributors. Map data powers Lyft’s ETA, routing, localization, and navigation. I took Lyft from no map data product to one that powers all map surfaces today.
- Led the technical design, team design, roadmap, and map data strategy for Lyft Maps.
 - Developed the “mapmaking supply chain” for continuous map improvement. Developed multiple connected platforms for continuous imagery collection from vehicles (capturing 10Ms

images / Mo), continuous human-in-the-loop map edit tasking, and automation of map editing through ML/AI pipelines leading to over 150 internal map edits/day and over 500k edits to OSM since 2020.

- Established the “buy + tune” pattern: bootstrap from Open Street Map (OSM) and incrementally edit what our products needed.
- Moved all mapping teams and services to a continuous data refresh cadence.
- Established metrics and ops reviews across teams for relentless attention to outcomes.

Samsara Networks

Senior Engineering Manager

2019

Led a team of 12 reports (roughly 3 teams: full stack product, on-device, and ML) building product features both on camera and in cloud.

- Developed after-market ADAS features for commercial vehicles incl. time-to-collision, distracted driving, and rolling-stop estimators.
- Developed a new on-device object detector that increased accuracy, number of detected classes on device, and on-device frame-rate using novel Samsara datasets.
- Developed facial recognition product that matches and assigns driver faces to vehicle trips.
- Established first ML hiring pipeline from the ground up yielding first few ML specialists.

Clara Labs

Director

2015 – 2019

Head of engineering at Clara Labs (acquired by TopFunnel & Twitter). I led the engineering team from series A to exit. We built a human-assisted natural language processing email scheduling service.

HEAD OF ENGINEERING: Managed one cross-functional team of 9 reports with experience from junior to staff. This role included company leadership, project execution, and people management.

- Implemented best practices for creative builders, good software hygiene, and increasing team collaboration both within and across functions. meetups, and conferences.
- Enabled sales and pivot to recruiting coordinator focus by successfully shipping numerous projects, notably: a formal structuring of customer preferences, a suite of new third party integrations (Office365, GoogleMeet, Zoom.us, Lever, and CoderPad), a back-to-back sequence scheduling tool for onsite interviews (an entirely new product), migration to Docker/ECS, and a second generation human-in-the-loop tasking framework.
- Hired half of the final team brought to the exit.
- Key partner to founders in company acquisition: pitch deck, story, demo, and other assets.

TECHNICAL: I led efforts to automate our product and reduce reliance on people in the loop.

- Drove system evolution from human-first to software-first. Today software chooses the majority of meeting times suggested or confirmed and human intervention is not required for the majority of sent messages. Efforts led to pure automation increases of 15%.
- Developed production natural language processing (NLP) pipeline.
- Developed annotator accuracy estimation system.

Google (Nest Labs)

Senior Software Engineer

2014 – 2015

After Dropcam’s acquisition by Google I contributed to algorithms / computer vision team with including enabling use of Google’s services.

- Led development of upgrade to backend service to process longer video events.
- Migrated Dropcam vision algorithms to Google machine learning pipeline framework.

Dropcam

Research Scientist, Computer Vision

2012 – 2014

Main contributor to computer vision at Dropcam (acquired by Google/Nest). Shaped vision product by identifying key new ML-based products, implementing algorithms, and developing an event-based video processing service.

- Embedded camera video analysis algorithms, e.g.: background estimation and subtraction.
- Cloud video analysis algorithms, e.g.: object detection and tracking, feature extractors.
- Video analysis service that scaled to process events from all cloud connected cameras.
- Proposed and developed products: Activity recognition and activity zones.

Consulting / Advising

Signal Processing, Machine Learning

2008 – Present

- **Neosensory (2017)** Audit prototype acoustic pipeline; implemented best practices with junior staff.
- **Order of Magnitude Labs (2016)** Audited new reinforcement learning technologies, proposed applications and validation experiments.
- **Raytheon (2011)** Developed algorithms and models for compressive sensor arrays.
- **InView (2010 - 2011)** Built initial camera prototype image recovery software for “single pixel camera.”
- **Park Assist (2008)** Researched occupancy prediction models for sensor-based parking systems.

Rejecta Publications

Co-founder, Editor

2008 – 2011

Rejecta Mathematica is a journal for rejected papers, focused in the mathematical sciences.

rejecta.github.io/mathematica/volumes, economist.com/science-and-technology/2009/07/29/huddled-maths

Open Source
Projects

- github.com/jasonlaska/muni-minutes-map: Mapping zoning board minutes via LLMs
- github.com/jasonlaska/spherecluster: Clustering algorithms for the unit sphere
- github.com/skggm/skggm: Gaussian graphical model estimation (skggm.github.io/skggm/tour)

Pubs, Patents,
& Awards

7 journal and 16 conference publications, 37 patents granted across 5 organizations, IEEE SP Magazine Best Paper Award (2020) and Hershel M. Rich Outstanding Invention Award (2007) for work behind “[Single Pixel Camera](#)”, Rice University Fellowship

Selected
Presentations

- Keeping OpenStreetMap fresh, accurate, and navigation-worthy at Lyft. In *State of the Map US 2024*, Salt Lake City, UT Jun. 8, 2024. [abstract](#) — [slides](#) — [video](#)
- Speed vs. Specificity: Designing text annotation tasks for the people and algorithms that drive human-in-the-loop (HIL) products. In *O’Reilly Artificial Intelligence*, San Francisco, CA Sep. 7, 2018. [abstract](#) — [slides](#) — [video](#)
- Strategies for integrating people and machine learning in online systems. In *O’Reilly Artificial Intelligence*, New York, NY Jun. 29, 2017. [abstract](#) — [slides](#) — [video](#)

Selected
Publications

- L. Jacques, J. N. Laska, P. T. Boufounos, and R. G. Baraniuk. Robust 1-Bit Compressive Sensing via Binary Stable Embeddings of Sparse Vectors. *IEEE Transactions on Information Theory*, Vol. 59 No. 4, pp. 2082–2102, 2013. <http://dx.doi.org/10.1109/TIT.2012.2234823>
- J. N. Laska, P. T. Boufounos, M. A. Davenport, and R. G. Baraniuk. Democracy in Action: Quantization, Saturation, and Compressive Sensing. *Applied and Computational Harmonic Analysis*, Vol. 31 No. 3, pp. 429–443, 2011. <http://dx.doi.org/10.1016/j.acha.2011.02.002>
- M. F. Duarte, M. A. Davenport, D. Takhar, J. N. Laska, T. Sun, K. F. Kelly and R. G. Baraniuk. Single-Pixel Imaging via Compressive Sensing. *IEEE Signal Processing Magazine*, Vol. 25 No. 2, pp. 83–91, 2008. <http://dx.doi.org/10.1109/MSP.2007.914730>

CV

Comprehensive CV at jasonlaska.github.io/Resume/JasonLaska_cv.pdf