

JORDAN MOLDOW

San José, CA

(201) 655-1224

jmoldow@alum.mit.edu

<https://github.com/jmoldow>

EDUCATION

Bachelor of Science in Mathematics and in Computer Science and Engineering 2010 – 2014
Massachusetts Institute of Technology (MIT), Cambridge, MA

WORK EXPERIENCE

Box – <https://www.box.com/overview> 2014 – 2023

Staff Software Engineer, Database Tools and Automation team, Box 2019 – 2023

Senior Software Engineer, Database Tools and Automation team, Box 2017 – 2019

- Developed tools, sharding algorithms and data structures, intermediate services, and protective measures to support Box's online relational data.
- Technical lead, architect, and mentor for team of 3-4 other software engineers. Coached 3 teammates through professional development to achieve promotions.
- Identified, defined milestones, and led successful execution of project to eliminate reliability issues with "shard split" infrastructure, make it self-serve, and capable of running concurrent jobs. Prioritized high-impact, low-effort automation and coached less-experienced engineers to deliver milestones. Led team's first successful cross-department scrum team.
- Led the team through the design and implementation of the last few major milestones of a 4-year migration off a legacy database. Replaced a hundreds-of-billions-of-rows unsharded database with a sparse, sharded data structure. Eliminated an expensive, nearly-full, high-toil SPOF.
- Delivered proofs-of-concepts and evaluations for next generation MySQL database architecture: dynamic service discovery, single-leader topology with failover, Kubernetes migration for failover service, Kafka to GCP Pub/Sub migration for change data capture (CDC) stream, and Vitess cluster.
- Designed and guided the implementation for scaling the relational database tier by sharding a previously global table, unblocking previous scaling limitations and facilitating several major product launches.
- Temporary acting manager while managers were on leave. Finalized and tracked OKRs, led daily operations, oversaw multiple projects, conducted informal career conversations (with peer+self+"manager" feedback).
- Team representative and key contributor on Core Data department Architecture Group.
- Acting co-lead for Architecture Group between departure and arrival of department Principal Architects.
- Conducted architecture lecture series, and led group workshops focused on elevating team candor / cohesion / effectiveness.

Senior Software Engineer, Desktop team, Box 2016 – 2017

Software Engineer, Desktop team, Box 2014 – 2016

- Performed development for the initial public Beta for the Box Drive desktop client. Owned significant portions of the Python-based remote event listeners and syncing engine.
- Invented and built novel approaches for correctly syncing events from the Box API to a client that only has a partial, possibly not-yet-consistent snapshot of the file system.
- Drove engagement with the API backend teams on dependencies for Box Drive. Wrote API specifications.
- Represented all client-application teams on company API Working Group. Reviewed API designs for compatibility and ease-of-use for 1st- and 3rd-party client use-cases.
- Co-created and co-owned the [public box-python-sdk on Github](#).
- Mentored intern project to enhance box-python-sdk and migrate Box Drive from private to public SDK.
- Built and promoted internal community of Python developers. Organized code walk-throughs and tech talks. Coordinated company participation at PyCon.
- Improved build/release process and contributed Puppet IaC code for the build servers.
- Volunteer Ops engineer for a quarter. Implemented Puppet IaC repo testing. Presented at PuppetConf.

Software Engineer Intern , WebApp Performance team, Box <ul style="list-style-type: none"> Designed and implemented a RESTful Hive data analytics graphing solution. Leveraged the Django-based Cloudera Hue webapp and the Apache Oozie workflow scheduler for Hadoop. 	2013 Summer
Leaf – https://archive.is/xXWij	2012 Summer
Software Engineer Intern <ul style="list-style-type: none"> Developed simplified, self-serve customer onboarding app. Built from Ruby on Rails and jQuery. 	
Learning Unlimited – https://learningu.org	2011 – 2016
Volunteer Developer and System Administrator <ul style="list-style-type: none"> Contributed to OSS Django app used by chapters nationwide to run educational programs. Trained and coordinated volunteer developers. Maintained servers. Deployed and QA tested app releases. 	
Google Summer of Code Intern , Learning Unlimited <ul style="list-style-type: none"> Built Django web-UI for program admins to make custom DB queries. 	2011 Summer
SERVICE	
Silicon Valley Bicycle Coalition (SVBC), San José local team	2023 – present
Japanese American Museum of San Jose (JAMsj)	2023 – present
Educational Studies Program (ESP), MIT	2010 – 2014
PRESENTATIONS	
All abstracts, videos, slides, and other materials: https://github.com/jmoldow/talks	
The Last Mile - Delivering the Last 10% of a 4-year Migration DeveloperWeek Global: Enterprise – December 2021 Percona Live Online – May 2021	
Deploying a Sharded Vitess Sandbox Cluster in Public Cloud Kubernetes in 10 Minutes Percona Live Online – May 2021	
Introducing Transit Nodes - A Sparse Data Structure for Recording Sharding Denormalizations Percona Live Online – May 2021	
Turning Pain Into Gain: A Puppet Unit Testing Story – Nadeem Ahmad & Jordan Moldow PuppetConf – October 2016	
RELEVANT TECHNICAL SKILLS	
Programming (Advanced): Python, Scala Programming: Java, Ruby, Javascript, PHP, Haskell, C, C++ DevOps: Bash, jq, jsonnet, Kubernetes, Jenkins, Puppet Web content: HTML, Markdown, PHP, Django, Jupyter Notebooks Data: SQL, MySQL, Vitess, Kafka, CDC, Thrift, Avro, Hive Development: git, make, GitHub Operating Systems: GNU/Linux Cloud: GCP Observability: Wavefront, Splunk, Elasticsearch	