

JORDAN MOLDOW

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<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

Database Tools and Automation team, Box 2017 – 2023

Staff Software Engineer (2019 – 2023), **Senior Software Engineer** (2017 – 2019)

- Developed services, sharding algorithms, and protective measures to support Box's online relational data.
- Served as technical lead for team of 3-4 other software engineers.
- 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 single point of failure.
- 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.
- Coached 3 teammates through professional development to achieve promotions.
- Served as temporary acting manager. Finalized and tracked OKRs, led daily operations, oversaw multiple projects, conducted informal career conversations (with peer+self+"manager" feedback).
- Served as team representative and key contributor on Core Data department Architecture Group.
- Served as temporary acting co-lead for Architecture Group.
- Conducted architecture lecture series.
- Led group workshops focused on elevating team effectiveness, community, and candor.

Desktop team, Box 2014 – 2017

Senior Software Engineer (2016 – 2017), **Software Engineer** (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 2013 Summer

- 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.

Leaf – <https://archive.is/xXWij> 2012 Summer

Software Engineer Intern

- 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

- Contributed to OSS Django app used by chapters nationwide to run educational programs.
- Deployed and QA tested app releases.
- Trained and coordinated volunteer developers.
- Maintained servers.

Google Summer of Code Intern, Learning Unlimited 2011 Summer

- Built Django web-UI for program admins to make custom DB queries.

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

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