

# Brenden Matthews

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## CONTACT INFORMATION

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## PUBLISHED WORKS

**Code Like a Pro in Rust**, to be published by Manning Publications, estimated early 2023.

## PUBLIC SPEAKING

Have given numerous talks on my work at conferences and private engagements, including but not limited to **All Things Open**, **QCon**, **LinuxCon**, **ContainerCon**, and **MesosCon**.

## OPEN SOURCE

Contributed to hundreds of open source projects, member of the Apache Software Foundation, and have created a number of popular projects with a few highlighted below:

**Conky**, C and C++

**5700+ GitHub stars**

Endlessly configurable system monitor utility for UNIX systems.

**thetagang**, Python

**1500+ GitHub stars**

Equity options trading tool for profiting from theta decay. Designed for use with IBKR.

**dryoc**, Rust

**130+ GitHub stars**

High quality pure-Rust general purpose cryptography library compatible with libsodium. Features generic hash functions suitable for cryptography, protected memory, zeroization, and SIMD.

## PROFESSIONAL EXPERIENCE

**Multiple Companies**, USA

*Founder, CEO*

**April 2019 – present**

Founded multiple small software startups in different sectors. Mostly SaaS, self-service and either pay-as-you-go or subscription based. Worked with the goal of bootstrapping moderately profitable businesses in order to sell them.

**Braze, Inc.**, New York, NY

*Engineering*

**Oct 2018 – April 2019**

Building infrastructure with Kubernetes.

- Lead an effort to transform ad-hoc Bash-based deployment scripts into declarative Helm and Terraform based deployments
- Provided engineering-wide guidance and training for migrating to Terraform and Helm
- Ported primary Rails monolith to Kubernetes
- Implemented continuous integration and deployment system for Kubernetes applications

**Citadel LLC**, New York, NY

*Engineering*

**Oct 2017 – Jun 2018**

Joined the platform engineering group as part of the data engineering team to build out Citadel's data platform technology. Primarily working with tools that integrate on-prem and cloud (AWS and GCE) data infrastructure.

- Lead an effort to modernize data access, control, and authorization
- Managed a migration of legacy data systems to PostgreSQL on RDS backends
- Provided technical leadership to the data science team for best practices on building and deploying very large machine learning jobs with Spark, Redshift, and Snowflake

## **D2IQ (fka Mesosphere), Inc., San Francisco, CA**

*Sales & Engineering*

**Jan 2015 – Feb 2017**

As an early Mesosphere employee, was an integral part of founding the company. Worked on multiple customer engagements, acting in both pre-sales and post-sales positions. Assisted management with fundraising pitches.

- Built the initial sales team by leading key hires for VP Sales, early SEs, SAs, and Head of Services
- Built cloud migration plans for enterprise customers
- Lead and lectured week-long in-depth onsite training sessions
- Advised C-level management at Fortune 500 companies on container technology adoption to accelerate their innovation
- Lectured and gave talks at several meetups and conferences
- Contributed to various engineering efforts
- Published several original blog posts
- Built and maintained marathon-lb, the canonical load balancing and service discovery tool for Marathon and DC/OS

## **Airbnb, Inc., San Francisco, CA**

*Engineering*

**Feb 2013 – Jan 2015**

Early employee at Airbnb. Joined the Data Infrastructure team to help Airbnb scale to support the massive growth of the company, and meet the company's needs for managing a large, growing data warehouse. Worked directly with teams all across the company to help meet their data needs, and build out a rich set of data tooling.

- Built next generation of data infrastructure utilizing open source tools such as Mesos, Hadoop, HDFS, Chronos, and Storm
- Contributed code to several projects, including: Mesos, Hadoop, Storm, Spark, Presto, Chronos, Marathon, and others
- Worked on early versions of Apache Superset (fka Airpal)
- Lead work on next generation of data processing tools, including Apache Airflow
- Lead an effort to improve data quality through the use of an automated verification system
- Coined our team motto of "*Provably correct data*"
- Gave a number of internal tech talks on emerging technologies at Airbnb

## **Newfield Wireless, Inc., Berkeley, CA**

*Engineering*

**Sept 2009 – Nov 2012**

Leveraged 3GPP layer 3 expertise to build a UMTS network data parser and indexer. Designed and implemented the first suite of real-time 3GPP LTE capture/parsing tools.

- Created a customized database solution with integrated flexible query language for accessing millions of streaming records in real time.
- Designed and implemented asynchronous communication library with feature set similar to ZeroMQ, with C++ and Python interfaces.
- Designed and implemented a reporting library for generating key performance indicators from vast quantities of raw data, leveraging previously mentioned customized database.
- Introduced new development and debugging methodologies to the team which significantly improved the pace of development and quality of deliverables.
- Assisted junior and senior developers on all aspects of software engineering.
- Oversaw design and implementation of schema-based XML software specifications.

- Developed end user applications, web services, and embedded software.
- Involved in strategic planning, performance and productivity improvement, organizational design, e-commerce, new media and Internet promotion.
- Planned, participated, and coordinated team building exercises while demonstrating strong leadership skills.
- Configured and managed servers, automated backup systems, and provided support for customers as well as in-house support.
- Leveraged new technologies to enhance our product-to-customer experience in a timely and cost effective fashion.
- Implemented cost reduction IT strategy to make use of existing infrastructure instead of requiring further equipment purchases.

PROGRAMMING  
EXPERIENCE

*Languages:* Rust, C, C++, Python, Ruby, Bash, Go, Java, Scala, Kotlin, L<sup>A</sup>T<sub>E</sub>X

*Data Technology:* Kafka, Cassandra, Redis, PostgreSQL, ElasticSearch/Lucene, MySQL, Hadoop, Hive, Presto, RedShift, BigQuery, SQS, EMR, RDS, Snowflake