

Brenden Matthews

Contact

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Professional Summary

Visionary software engineer and technical leader with extensive experience in Rust, C, C++, Python, JavaScript, TypeScript, and large-scale infrastructure systems. Recognized expert in Rust programming, with two published books and a prolific open-source portfolio. Proven ability to lead engineering teams, manage cross-functional projects, and deliver transformative technical solutions. Adept at scaling systems, mentoring talent, and fostering a culture of innovation and collaboration.

Technical Skills

- Programming Languages: Rust, C, C++, Python, JavaScript, TypeScript, Go, Java, Scala, Bash
- Cloud & Infrastructure: Kubernetes, Docker, Mesos, Nomad, Terraform, AWS, GCP, Azure
- Data Systems: Kafka, Cassandra, Snowflake, PostgreSQL, ElasticSearch, Spark, RDS, Redshift, Redis, Hadoop, Presto/Athena
- Tools & Libraries: PyTorch, TensorFlow, Helm, Prometheus, Grafana, Git, Jenkins, CircleCI
- Methodologies: Agile Development, Technical Roadmapping, Cross-Functional Leadership, DevOps, CI/CD

Professional Experience

Entrepreneur, Author, Consultant

2019 - Present

New York, NY

- Founded and scaled multiple businesses, delivering high-quality technical solutions and managing operations end-to-end.
- Authored two best-selling books on Rust programming, establishing thought leadership in modern software development.
- Partnered with global clients as a consultant, providing expertise in cloud migration, Kubernetes adoption, and data engineering.
- Developed and launched a Rust-based online coding curriculum, mentoring over 1,000 students.
- Created high-impact open-source projects, including:
 - Conky (7.3k+ stars): Versatile cross-platform system monitor.
 - **ThetaGang** (2k+ stars): Equity options quantitative trading platform leveraging advanced data processing.
 - dryoc (280+ stars): Cryptographic library in Rust, offering advanced memory safety features with hard-to-misuse API.

Braze, Inc. 2018 - 2019

Staff Engineer, New York, NY

- Spearheaded migration of legacy deployment systems to Kubernetes, implementing Helm and Terraform for seamless orchestration.
- Designed and rolled out robust CI/CD pipelines, enhancing deployment reliability by 40%.
- Mentored and upskilled a team of 10+ engineers, promoting adoption of modern infrastructure tools and practices.
- Defined scalable monitoring strategies using DataDog, achieving 99.9% uptime for mission-critical services.

Citadel LLC 2017 - 2018

Staff Engineer, New York, NY

Architected a modernized, hybrid cloud data platform, integrating on-premises and cloud environments (AWS & GCP).

- Led migration of data systems to PostgreSQL, improving query performance by 60%.
- Guided data science teams in deploying large-scale machine learning models with Spark and Snowflake.

D2IQ (fka Mesosphere)

2015 - 2017

Staff Engineer & Sales Engineering Lead, San Francisco, CA

- Built and led the initial sales engineering team, recruiting and training top talent for technical sales and implementation.
- Partnered with Fortune 500 clients to define cloud-native transformation strategies, increasing adoption of containerization.
- Developed and maintained several frameworks including **Hadoop**, **Chronos**, **Marathon** (and **marathon-lb**, a critical load balancing tool for DC/OS), and serverless tooling.

Airbnb, Inc. 2013 - 2015

Software Engineer, Data Infrastructure, San Francisco, CA

- Pioneered development of scalable data processing pipelines, leveraging Apache Spark, Hadoop, and Mesos.
- Played a critical role in creating and scaling **Apache Superset**, a powerful data visualization platform, and **Apache Airflow**, a workflow orchestration tool.
- Improved organizational data accuracy with an automated verification system, reducing errors and pipeline failures by 90%.
- Improved query times by 100x by optimizing data storage and retrieval mechanisms.
- Led a team of 10+ engineers, fostering a culture of innovation and collaboration.

Newfield Wireless, Inc.

2009 - 2012

Senior Software Engineer, Berkeley, CA

- Developed real-time 3GPP LTE network capture and parsing tools, enhancing data processing efficiency.
- Created a custom database solution with an integrated query language, enabling real-time analysis of streaming records.
- Designed and implemented communication libraries for high-performance data pipelines in C++ and Python.

Real Time Measurements, Inc.

2003 - 2009

Software Engineer, Calgary, AB

- Built end-user applications, web services, and embedded software for industrial use.
- Configured servers and automated IT systems, reducing costs and improving system reliability.

Open Source Contributions

- Apache Projects: Contributed to Apache Kafka, Superset, Airflow, Spark, and Mesos (PMC member).
- Published and maintained tools with 10k+ combined GitHub stars, reflecting broad adoption and community impact.

$\begin{array}{c} \textbf{Published} \\ \textbf{Works} \end{array}$

- Code Like a Pro in Rust (Manning Publications)
- Idiomatic Rust: Code like a Rustacean (Manning Publications)

ISBN: 9781617299643 ISBN: 9781633437463

Public Speaking

- Delivered talks at All Things Open, QCon, LinuxCon, and other conferences.
- Frequent keynote speaker on Rust programming, cloud infrastructure, and distributed systems.