Matt M. Parrett

I am a software engineer with 12 years of experience developing at scale, including components of Alexa's secure ML science platform. I'd like to partner on solving tough problems to make the world a better place.

PROFESSIONAL EXPERIENCE

Mercari, US Machine Learning Platform – **Senior ML Platform Engineer**

Nov 2021 - Oct 2022

Developed microservices and ML platform components for the Mercari shopping app. Provided cross-functional engineering support for ML teams.

- Integrated Vertex AI Matching Engine pre-GA streaming features for a new microservice, improving data update frequency (10's of millions of user vectors) from hours to minutes.
- Decoupled and refactored a CRM time-series service (Meta Prophet), increasing anomaly detection frequency from 1 hour to ~1 minute.
- Partner with ML Engineers to productionize and A/B new models, including an improved dynamic shipping label prediction service with >5% absolute accuracy improvement.

Amazon, Alexa Secure AI Foundations – **Software Dev. Engineer II**

Aug 2017 - July 2021

Designed and developed services and SDKs for a distributed ML platform.

- Developed an account metadata service, web portal, and AWS account creation API enabling role-based data access and self-service onboarding for 1,500+ science users, reducing account onboarding time from 2 weeks to under 1 hour.
- Developed a SDK for a ML Model repository enabling scientists to securely share 1000's of job artifacts.
- Partnered with science teams to integrate specific ML frameworks with a metrics ingestion SDK, enabling visualization and resource utilization reports across disparate services.
- Mentored junior engineers and conducted technical interviews during rapid growth in Alexa (4x headcount).

Amazon.com – **Software Dev. Engineer II**

Jan 2017 - Aug 2017

- Migrated legacy web shopping cart logging components (Perl) to a more scalable Java service.
- Researched and resolved operational issues during on-call rotation.

CONTACT

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CORE SKILLS

Python, Java

Microservice Development

Back-end Service Design

Google Cloud Platform

Amazon Web Services

SQL, Linux/shell

COMPETENCIES

Software Development

System Design

Machine Learning

Technical Mentoring

Continuous Integration and Deployment

OOP and Design Patterns

Linux Administration

Distributed Systems

Monitoring and Automation

Javascript, React

ABOUT

I grew up in Arizona and am the father of two boys. I practice jiu-jitsu and like to travel, explore outdoors, and eat dark chocolate.

Broken Bulb Game Studios – **Lead Engineer / CTO**
Nov 2009 - Oct 2016

- Led software engineering for back-end and front-end software engineering across 10 mobile/social game launches with 20+ million monthly active users.
- Designed and developed the infrastructure, front-end game engine, world editor, and player-versus-player game server for the game Miscrits.
- Saved 70% on infrastructure costs by migrating game services to cloud infrastructure with minimal downtime (<1 hour).

EDUCATION

- 2019 - 2020 - Arizona State University online; Economics. Completed self-paced mathematics courses supporting machine learning. Cum. GPA: 3.77 (non-degree)
- 2016 - 2021 - Coursera and Amazon Machine Learning University courses. (various)
- 1999 - 2000 - Attended University of Arizona. Left to pursue business endeavors. (non-degree)

RECENT COURSES

- *Machine Learning for Trading* by Google Cloud & NY Institute of Finance on Coursera. Certificate earned July, 2021
- *Regression Modeling* by Amazon Machine Learning University. Completed in January 2020
- *Neural Networks* and Deep Learning by deeplearning.ai on Coursera. Certificate earned on November 22, 2019
- *Improving Deep Neural Networks* by deeplearning.ai on Coursera. Certificate earned on November 24, 2019
- *Structuring Machine Learning Projects* by deeplearning.ai on Coursera. Certificate earned on November 25, 2019
- *Data Processing for Machine Learning* by Amazon Machine Learning University. Completed in September, 2018
- *Math Fundamentals for Machine Learning* by Amazon Machine Learning University. Completed in March, 2018
- *Machine Learning* by Stanford University on Coursera. Certificate earned on December 1, 2016
- *Learning How to Learn*: Powerful mental tools to help you master tough subjects by University of California, San Diego on Coursera. Certificate earned on July 14, 2016

REFERENCES

Majed Takieddine – ML Platform Engineering Manager, Mercari US
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Robert Nelson – CEO, Broken Bulb Studios
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Andy Holloway – Co-founder at MagMyPic
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