

JASMINE MOORE

Staff Software Engineer

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EDUCATION

Bachelor's of Science (Computer Science) University of North Texas

2012 Denton, Texas, United States of America

PROJECTS

Genius Platform

05/2023 - 01/2026 Los Angeles, California

Project focused on developing a high-performance distributed platform for various applications.

- Led team of 3 applied researchers and 4 Research Software Developers to create a high-performance general variational Bayesian platform, adaptable for multiple tasks
- Built custom integrations for customers: Helix for bond pricing; VBGS for embodied robotics; insulin modeling for medical devices
- Rust-based distributed platform using on-demand creation of engines for execution using python back-end libraries
- Worked directly with specialized research teams to implement key features
- Explainable, verifiable system capable of processing 10,000,000 observations in 5 seconds into outcome probability with information-seeking, online learning, and adaptability to environmental uncertainty while running in less than 24GB of VRAM

Genius Core

05/2023 - 01/2026 Los Angeles, California

Development of a high-performance database with machine learning capabilities.

- Rust development: Created a high-performance multithreaded merged vector and document database in Rust with in-situ data processing with networked access
- 2m point HNSW vector search with 4 logical document predicates executed in under 200ms
- Designed and implemented query planner, query optimizer, buffer pool, and disk storage systems for custom query DSL
- Acts as information retrieval system for machine learning while performing in-situ active inference calculation
- Worked directly with internal and external stakeholders to deliver a tailored product from green field to shipping product

LANGUAGES

English

Native



French

Intermediate



SKILLS

Group

Software Architecture

Distributed Systems

Mentorship

Project Management

Leadership

Personal

Machine Learning

Pipelines

Software Engineering

Python

Rust

PostgreSQL

Redis

Kubernetes

PUBLICATIONS

TextWorld: A Learning Environment for Text-Based Games

NeurIPS 2019

Marc-Alexandre Côté, Ákos Kádár, Xingdi Yuan¹, Ben Kybartas, Tavian Barnes¹ Emery Fine, Jasmine Moore, Matthew Hausknecht, Ruo Yu Tao, Layla El Asri, Mahmoud Adada, Wendy Tay, and Adam Trischler

2019 https://arxiv.org/pdf/1806.11532

An environment for reinforcement learning agents to learn causal reasoning skills.

PROJECTS

Bing Turing API

📅 11/2019 - 05/2022 📍 Montreal, QC

Development of Bing Turing API and high-availability systems for internal customers.

- Project lead for Bing Turing API, which allows internal customers to access Bing Turing AI models at high availability.
- Used by Bing Maps, Bing Search, Microsoft To Do, PowerPoint, and other products.
- >1 billion DAU; frontend QPS >100mm; backend QPS >10k.
- Created Azure DevOps CI tooling for SOC2 and ISO27001-compliant deployments.
- Implemented and maintained chatbot infrastructure for <https://bing.com/covid>, a project with >99.9% uptime worldwide, with millions of active users.

Xbox Question Matching Service

📅 04/2017 - 11/2019 📍 Montreal, QC

Infrastructure development for Xbox question matching services.

- Created a scalable, multithreaded, distributed Xbox Question Matching Service, whose architecture was deployed by the Xbox team to en-worldwide (billions of customers) in December 2020
- GDPR compliance efforts for two multinational production systems

EXPERIENCE

Staff Software Developer

Verses Technologies Inc

📅 05/2023 - 01/2026 📍 Los Angeles, California

- Technologies: Python, JAX, LAX, CUDA, Rust, Pydantic
- Created rust-based distributed platform using on-demand creation of engines for execution using python back-end libraries
- Led team of 3 applied researchers and 4 Research Software Developers to create a high-performance general variational Bayesian platform
- Brought Genius Core, a high-performance shared vector and document database, from ideation to completion
- Built custom integrations for customers: Helix for bond pricing; VBGS for embodied robotics; insulin modeling for medical devices
- Worked directly with specialized research teams to implement key features

Senior Infrastructure Developer

Adeptmind Inc

📅 05/2022 - 05/2023 📍 Toronto, ON

- Migrated company to use infrastructure-as-Code controls and terraform to reduce defect rate and increase observability
- Created standards to increase knowledge transfer to mitigate impact of high turnover
- Implemented practices and procedures for other infrastructure developers to use, to reduce migration risk and migration defect rate (reduced from monthly outages to one outage in six months)
- Cost reduction: Moved from \$200k/month spend to \$80k/month spend across all products with higher service reliability

EXPERIENCE

Software Development Expert II

Microsoft Turing

📅 11/2019 - 05/2022 📍 Montreal, QC

- Project lead for Turing API, which allows internal customers to access Turing models at high availability
 - >1 billion DAU; frontend QPS >100mm; backend QPS >10k
 - Created Azure DevOps CI tooling for SOC2 and ISO27001-compliant deployments
 - Created and managed chatbot infrastructure for <https://bing.com/covid>, a project with >99.9% uptime worldwide, with millions of daily active users
 - Created and managed Turing Uptime, a web-based internal monitoring platform for demo and resource stability
 - 'Conversation Expander', an LLM debug tool to provide internal insight to threaded conversations and RAG lookups
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Software Development Expert

Microsoft Research

📅 04/2017 - 12/2020 📍 Montreal, QC

- Created a scalable, multithreaded, distributed Xbox Question Matching Service, whose architecture was deployed by the Xbox team to en-worldwide (billions of customers) in December 2020
- GDPR compliance efforts for two multinational production systems
- Developed information retrieval components for Bing Chat (during research phase)
- Used UHRS to deploy a wide-scale data collection effort for Machine Reading Comprehension on PDF documents
- Helped develop Bing Covid Bot
- Helped create the training framework for TextWorld (see publications)