

# JASMINE MOORE

## Staff Software Engineer

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Montreal, Quebec H2S 3G4

## 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 Yuan<sup>1</sup>, Ben Kybartas, Tavian Barnes<sup>1</sup> 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.pdf>

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

## PROJECTS

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### 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.

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### 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

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### 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

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### 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**

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### **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)