

Piyush Datta

Website: <https://www.piyushdatta.com>

GitHub: <https://github.com/PiyushDatta>

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Work Experience

Amazon Web Services

Software Development Engineer II

San Francisco Bay Area, CA

April 2022 – Present

Software Development Engineer I

June 2020 – April 2022

- Backend development work with AWS Aurora Database Engine team using C/C++
- Core engineer on new Limitless product for Aurora which was presented and explained at 2024 re:Invent (<https://aws.amazon.com/about-aws/whats-new/2023/11/amazon-aurora-limitless-database/>)
- Focused on creating a distributed storage engine that can handle distributed transactions and queries
- Filed a patent as lead engineer in a solution using a RL based AI model to predict optimal database configs
- Part of core Aurora MySQL team that worked on recent major version, Aurora MySQL 3 (MySQL 8.0)

Givex

Software Developer

Toronto, ON

February 2019 – January 2020

- Backend development work with Python, JavaScript, C/C++, PostgreSQL, and Unix
- Implemented gift card, point of sale and other transaction-based solutions for Fortune 500 companies

Projects

TensorFlow – Google Brain Open-source Project

<https://www.tensorflow.org/>

C/C++, Python

- Contributor for open-source project to help developers create and train machine/deep learning models

Two Sigma - Artificial Intelligence (AI) Competition - Halite 2

<https://halite.io>

Python, TensorFlow, NumPy

- Used an artificial neural network to train and teach my bot to beat other bots in a virtual game created by Two Sigma (Ranked top 10% of players in Halite 2)

DattaBot – Artificial Intelligence (AI) LLM Bot

<https://github.com/PiyushDatta/DattaBot>

Python, PyTorch

- Created a transformer LLM model, API, and bot. Uses latest PyTorch features, error and debugging logging, easy model hyperparameters and configurations, and much more.

Cashmi - Android Application

<https://play.google.com/store/apps/details?id=com.application.cashmi>

Android, Java, Firebase, Facebook SDK

- Provides users with an easy way to split bills/transactions with other users

Other projects

<https://github.com/PiyushDatta>

- For more, please visit my GitHub page as it is not feasible to list them all here

Skills

Technologies/Concepts: C/C++, Rust, Python, JavaScript/Typescript, Distributed systems and transactions, IPC, 2PC, Neural Networks (AI), Reinforcement learning, LLM, Consensus algos, NewSQL/Distributed SQL

Education

University of Toronto, St. George Campus

Toronto, ON 2014 – 2018