Piyush Datta

**Website:** [https://www.piyushdatta.com](https://www.piyushdatta.com/) **GitHub:** <https://github.com/PiyushDatta> **Email:** [piyushdattaca@gmail.com](mailto:piyushdattaca@gmail.com)

**Work Experience**

**Amazon Web Services** Toronto, ON

*Software Development Engineer II* April 2022 – Present

*Software Development Engineer I* June 2020 – April 2022

* Backend development work with AWS Aurora Database Engine team using C/C++
* Filed a patent as lead engineer in a solution using a RL based AI model to predict optimal database configs
* Working on a horizontally scalable sharding solution for Aurora, focused on creating a distributed storage engine that can handle distributed transactions and queries using protocols, consensus, and IPC mechanisms
* Part of core Aurora MySQL team that worked on recent major version, Aurora MySQL 3 (MySQL 8.0)

**Givex** Toronto, ON

*Software Developer* 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 companies such as Nike, McDonalds, Marriott International, and many more
* Integrated Apple wallet and Google pay, with web services for both, into our gift card systems
* Developed SOAP APIs for integration with third party vendors, such as CAA

**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 learning models

**Two Sigma - Artificial Intelligence (AI) Competition - Halite 2** [https://halite.io](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)

**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>

* Desktop Image Tagger, SEC Edgar File Downloader, Monte Carlo Pi Approximation Simulation
* For more, please visit my GitHub page as it is not feasible to list them all here

**Skills**

**Technologies/Concepts:** C/C++, Rust, Python, Java, JavaScript/Typescript, Distributed transactions, IPC, 2PC protocol,

Neural Networks (AI), Reinforcement learning, Consensus algos, NewSQL & DistributedSQL

**Education**

**University of Toronto, St. George Campus** Toronto, ON 2014 – 2018