

Nekhil Nagia

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EXPERIENCE

Amazon Web Services SDE1

August 2021 – Present | Toronto

- Working on the **RDS Aurora Serverless Control Plane** team, the team is responsible for maintaining and optimizing crucial control plane components powering a massive fleet
- **Optimized a control plane component by 2x** to enable downscaling to low resource instances
- Setup distributed infrastructure for billing customers based on their serverless usage and working on internal APIs handling **100s of requests per second**
- Diagnosed and resolved critical networking issues in the service that led to customer downtime
- Actively involved in code reviews, design reviews and operations of the control plane

Amazon Web Services SDE Intern

May 2020 – August 2020 | Toronto

- Worked on the **RDS Aurora Control Plane** team responsible for managing and developing systems powering one of the fastest growing services in AWS
- Improved Aurora QA for **availability** by adding over **60 failure injection and stress tests**
- Successfully integrated work with release pipelines thus ensuring Aurora availability SLAs and prevent regressions during new releases

Square Emerging Machine Learning Developer

Feb 2020 – May 2020 | Toronto

- Worked on the **Risk Data Science** team to develop solutions to mitigate fraud in Cash App
- Worked on an end-to-end deep learning pipeline to predict chargebacks using raw event level customer data, used tools such as **TensorFlow, SQL, Apache Airflow**
- Built an **AI receptionist** system called Deep Doorman David as a **side project** that uses a custom **face recognition** model to interact with visitors at the office and notifies the appropriate employees on Slack

Dessa Software Engineering Intern

May 2019 – Feb 2020 | Toronto

- Building a product called **Foundations** for managing **end-to-end machine learning** lifecycle
- Involved in all areas of engineering, from setting up devops infrastructure in Jenkins & AWS to architecture and development using tools such as **Kubernetes, Redis and Python**
- Worked on a feature to allow the user to automatically track **data health** and consistency using intelligent data validation techniques and alert them to prevent model degradation

PROJECTS

Federated Learning for Wi-Fi Fingerprinting

2021 | Toronto

- Worked under the supervision of a PhD student and Professor Valaee at **WIRLab UofT**
- Created a **novel application of federated learning** for the Wi-Fi fingerprinting problem and demonstrating performance gains in localization accuracy
- Project culminated with a **research paper** that will be presented and published at the IEEE ICC 2022 conference in May

ACTIVITIES

Meditation, Camping & Hiking, Beginner pilot, Travelling

EDUCATION

UNIVERSITY OF TORONTO Bachelor of Applied Science in Computer Engineering

Graduated June 2021