

# Shalin Patel

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## EXPERIENCE

### AWS - Managed Workflows for Apache Airflow

#### Software Development Engineering Intern

Vancouver, BC  
May - Aug 2022

- Spearheaded the reduction of customer tickets and escalations by approximately 13%, targeting the problem statement towards **reducing stuck/failed tasks & DAG issues**.
- Modelled log parsing and analyzing architectures; implemented in AWS Console using CloudWatch, CDK, React, Node.js allowing for **quick debugging for 100K+ MWAA Environments**.
- Collaborated in the design of a Data Warehouse for key metrics and insights aggregated across MWAA Environments allowing for future **Exploratory Data Analysis**, incorporating **Data Persistence and Streaming**.

### Squarepoint Capital

#### Software Engineering Intern

Montreal, QC  
Jan - Apr 2022

- Developed ETL pipelines to support 13+ quant trading strategies across global markets using Python, PostgreSQL, GCP, Nomad and Bamboo.
- Built and architected a global search platform for data discovery across on-prem and cloud clusters using React, FastAPI, Elasticsearch, Kibana, Docker, Kubernetes and GKE allowing regex searching of **97,643+** documents.
- Designed a system for asynchronous requests to Elasticsearch using FastAPI, Celery, Flower, Redis, PostgreSQL **increasing throughput by 68%**.

### PagerDuty

#### Software Engineering Intern

Toronto, ON (Remote)  
May - Aug 2021

- Developed significant feature on flagship Mobile application using Java and Kotlin increasing **7-day app retention rate by 34%**.
- Implemented and designed architecture for endpoint aggregators written in Scala achieving a **72% increase in efficiency** and a 46% decrease in code.
- Formed dashboards in Sisense and tracked metrics in various features to obtain data directly impacting 6 projects.

### Pronti AI

#### Software Engineering Intern

Kitchener, ON (Remote)  
Jan - Apr 2021

- Led development of Android application using Java following MVP architecture, active monthly **users peaked at 5585**.
- Implemented regression testing for the above application using Java, JUnit, Mockito, and Espresso allowing for the **discovery of 37 bugs** and inefficiencies.
- Modified microservices using Flask and PostgreSQL **improving server side latency by 54%**.

### Doppl Inc

#### Software Engineering Intern

Kingston, ON (Remote)  
May - Aug 2020

- Implemented a route optimization algorithm in C++ similar to the Travelling Salesman Problem, achieving  **$O(n \log(n))$  runtime** for the average client use case.
- Created a full-stack proof-of-concept using React Native, Apollo GraphQL, and Golang that successfully led to full development.
- Contributed to client front-end dashboard adding 14 components using React, Mapbox and tested using Jest.
- Developed critical in-production admin dashboard using React, Node, Express, and MongoDB.

## EDUCATION

### University of Waterloo

2018 - 2023

Hons. Bachelors of Computer Science

Dean's List - Winter 2020

President's Scholarship of Distinction

## SKILLS

### Languages

Python, Java, Javascript, C, C++,  
Scala, Go, Kotlin, Bash, HTML5, CSS3,  
SQL, Scheme

### Data/ML

Elasticsearch, Kibana, GraphQL,  
MongoDB, MySQL, PostgreSQL, Redis,  
Numpy, Pandas, Scikit-learn, XGBoost

### Mobile/Web

Typescript, Node.js, React.js, FastAPI,  
Flask, Django, Android Studio, Xcode

### Other

Artifactory, AWS (EKS, Lambda, S3),  
Bamboo, Consul, Docker, GCP (File-  
store, GKE), Git, Kubernetes, Nomad

## PROJECTS

### Moodify - Hacklytics 2021

Python, Spotify API, Twitter API

A python bot which tweets a  
generated spotify playlist based on  
the emotions captured from a tagged  
tweet using text2emotion.

### Won Best Machine Learning Hack

### Solar

Pandas, Matplotlib, Scikit-learn  
A python script that successfully  
predicts power generation and  
irradiation of solar panels with 88%  
accuracy.

## LEADERSHIP

### University of Waterloo Math Soc.

### Finance Director

Planned budgets and funding for  
activities hosted by >20 clubs at the  
university.