Dhrumil Patel

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EXPERIENCE

Optiver
Software Engineer Intern
Jun - Aug 2025
Chicago, US
- Built and deployed a distributed RPC service optimized for low latency, high throughput and large payloads
- Investigated production GC incidents and implemented a fix to avoid kernel lock contention

Ramp
Software Engineer Intern
May - Aug 2024
New York City, US
- Built the international bill payment integration for 2 accounting platforms, deployed to **2600+** businesses
- Migrated accounting validation functions to run in bulk, improving their **p95 execution time** by **5x**
- Built a chatbot to search **500k+** leads' websites; won the company hackathon and deployed the project

Snowflake
Software Engineer Intern
Sept - Dec 2023
San Mateo, US
- Built clustering functions for Snowflake SQL to cluster **100M rows x 1k features** with metrics
- Developed a novel algorithm to find the number of clusters in large datasets in **linearithmic** time

Roblox
Software Engineer Intern
May - Aug 2023
San Mateo, US
- Built QA's **first** observability tools to calculate release metrics and report anomalies. Used by **4 teams**

Vector Institute
Applied Machine Learning Research Intern
Sept - Dec 2022
Toronto, CA
- Used domain adaptation to improve privacy-preserving federated learning **CNN**s' performance by **3.2%**

A Thinking Ape
Software Engineer Intern
May - Aug 2022
Vancouver, CA
- Implemented **2-step authentication** using **Django, Objective C** and **Java** to eliminate **10k+** bots per day

Flinks
Machine Learning Intern
Jun 2021 - May 2022
Montreal, CA
- Built & deployed a **BERT**-driven entity recognition system in **PyTorch** to interpret **100M+** transactions per day
- Improved the existing entity recognition system's performance (F1-score) by **56%**
- Used **Knowledge Distillation** to reduce required training data for entity recognition models by **30%**

PROJECTS & ORGANIZATIONS

Haystackfs
May 2021 - Present
- A verified Discord bot for fast and secure file search used by **42k+ users** in **700+ servers** to manage **1M+ files**

Unsupervised Monocular Depth Estimation
2023
- Extends Godard, Aodha, Brostow's 2016 work with a CNN for semantic segmentation

Watolink
2021-2022
- Led a team of 10 to build an **EEG signal processing API** for a **mind-controlled communication system**

Google Code-In: CCExtractor
Oct 2019 - Feb 2020
- Built a **Python Github App** that has reported **1500+** unsupported songs for **CCExtractor** and **SwagLyrics**

AWARDS & ACCOMPLISHMENTS

Top 3% Globally, 7th in Canada at Google Hashcode Qualifying Round — 2022
Top 7.5% Globally in Facebook HackerCup — 2021

EDUCATION

University of Waterloo, Candidate for Bachelor of Computer Science, Honours
President's Scholarship of Distinction, Faculty GPA: 3.9

TECHNICAL SKILLS

Languages: Python, C++, SQL, Java, Objective C
Tech: BigQuery, Docker, ElasticSearch, Spark, PostgreSQL, PyTorch, OpenCV, scikit-learn, NumPy