

Dhrumil Patel

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EXPERIENCE

- Ramp** May - Aug 2024
Software Engineer Intern 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 **4-5x**
- Snowflake** Sept - Dec 2023
Software Engineer Intern San Mateo, US
- Built clustering functions for Snowflake SQL to cluster **500k rows x 1k features** in **< 10 mins** with metrics
 - Developed a novel algorithm to find the number of clusters in large datasets in **linearithmic** time
- Roblox** May - Aug 2023
Software Engineer Intern San Mateo, US
- Built QA's **first** observability tools to calculate release metrics and report anomalies. Used by **4 teams**
- Vector Institute** Sept - Dec 2022
Applied Machine Learning Research Intern Toronto, CA
- Used domain adaptation to improve privacy-preserving federated learning **CNNs'** performance by **3.2%**
- A Thinking Ape** May - Aug 2022
Software Engineer Intern Vancouver, CA
- Implemented **2-step authentication** using **Django**, **Objective C** and **Java** to eliminate **10k+** bots per day
- Flinks** Jun 2021 - May 2022
Machine Learning Intern 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 (F-score) by **56%**
 - Trained entity recognition models with up to **30%** fewer training examples with similar performance using **Adversarial Validation**, **Active Learning** and **Knowledge Distillation**

PROJECTS & ORGANIZATIONS

- Haystackfs** May 2021 - Present
- A verified Discord bot for fast and secure file search used by **42k+ users** in **650+ servers** to manage **1M+ files**
- Unsupervised Monocular Depth Estimation** 2023
- Extends Godard, Aodha, Brostow's 2016 work with a CNN for semantic segmentation
- Watolink** Oct 2019 - Dec 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

- 1st at the International NeurotechX Competition** 2022
- HackMIT thatGameCompany Challenge 2nd Place, HackMIT MIT-IBM Challenge Winner** 2022, 2020
- Top 3% Globally, 7th in Canada at Google Hashcode Qualifying Round** 2022
- Top 7.5% Globally in Facebook HackerCup** 2021
- Hack The North Manulife Challenge Winner; Various prizes at 40+ hackathons** 2017 - Present

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, Google Cloud Platform, Docker, ElasticSearch, Spark, DigitalOcean, PostgreSQL
Libraries: PyTorch, Huggingface, OpenCV, scikit-learn, SciPy, Tensorflow, Keras, NumPy, Pandas, Matplotlib