

# Harnoor Singh

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## Education

### Memorial University of Newfoundland (MUN)

B.Eng in Computer Engineering (Co-op)

St. John's, NL  
Sept 2021 – Apr 2026

- Current average: 87.7% (GPA: 3.91/4.0)
- Faculty of Engineering and Applied Science **Dean's List** (2021-22), (2022-23), (2023-24)
- IUGS Entrance Scholarship 2021-22, Chevron Canada Ltd. Endowed Scholarship 2022-23, Verafin Inc. Computer Engineering Scholarship 2022-23, SPECEF Orennia Corporate Sponsored Scholarship 2024

## Experience

### ETL Developer (Part-time)

SimplyAnalytics

Remote  
Apr 2022 – present

- Responsible for upkeep of data pipeline code for datasets (over 100 GB each) associated with three vendors
- Maintaining existing pipeline code through any data schema changes, writing code for new pipelines and internal tooling

### Software Developer Intern

Nasdaq (Verafin — Cloud Infrastructure Ops Team)

St. John's, NL  
May 2024 – Aug 2024

- Used Terraform to architect a solution to store logs from Amazon Workspaces to S3 buckets and made it queryable
- Handled a variety of intra-company infrastructure requests (SQL cases, infrastructure provisioning, etc.)

### Hebron Asset Engineering Co-op

ExxonMobil

St. John's, NL  
Sept 2023 – Dec 2023

- Developed proof-of-concept transformer-based models to predict slugging in Hebron Wells
- Created parsers in Python to extract data from Word files to automate report generation
- Developed proof-of-concept data pipelines on Azure to deploy ML models for the local branch of the company, also enabling data-sharing partnerships with external companies/universities

### Development Engineering Co-op

ExxonMobil

St. John's, NL  
Jan 2023 – Apr 2023

- Developed proof-of-concept CNN and LSTM models for predictive maintenance of injector wells, flagging deviations 2 to 4 weeks in advance compared to existing methods
- Wrote Python Scripts to automate repetitive tasks for reservoir engineers, saving 4 weeks of FTE time/year
- Analyzed datasets with more than 20 million rows and 100 columns using Python and SQL to drive insights

### Software Developer & Drilling Data Analyst Co-op

Department of Process Engineering, MUN

St. John's, NL  
May 2022 – Aug 2022

- Trained CNN models and used other AI/CV techniques to automate drill bit damage detection
- Devised innovative novel algorithms to automate drill bit forensics as part of a research project
- Co-authored a **research paper** ([SPE-212503-MS](#)) with major contribution to both writing and research
- Developed an MVP for ExxonMobil related to drill bit damage detection and forensics

## Extracurriculars

**Engineering Society:** Director of Co-op for MUN Engineering Society A (Class of 2026)

**Conferences:** Presented at IEEE NECEC 2022 and Energy NL Conference 2023, participated in CELC 2024

**Hackathons:** Winning team member of CPA NL Data Analytics Hackathon 2023

**Engineering Student Teams:** Software member and ML lead for [Paradigm](#) and [IcebergASV](#)

## Technologies

**Languages:** Python, C, C++, C#, HTML, CSS, JS, SQL, PHP, R, Java, VHDL, Assembly

**Libraries:** NumPy, Pandas, Matplotlib, SciPy, Dask, Tensorflow, PyTorch, Keras, Scikit-learn

**Frameworks/Platforms:** Django, Flask, Node.js, Svelte, React.js, ROS, Databricks, Power BI, Tableau

**Developer Tools:** Git, Shell Script, Docker, Vim, GitHub Actions, Dagster, Azure, AWS, GCP, Terraform, Chef, MLflow

**Other:** MS Office Suite and Power Apps, Linux OS installations and troubleshooting, WHIMS, CAD

## Projects

**dino**: A clone of chrome's Dino game, implemented on Arduino's LCD screen

**commerce**: An eBay clone, with most functionality done

**wiki**: A Wikipedia clone, made to learn basics of backend development