

☎ (587) 936-7852
Toronto, Ontario

Neeraj Goyal

✉ ngoyal3@ualberta.ca
🌐 ngoyal3/linkedin

PROFESSIONAL SUMMARY

With over **three years of experience** in software engineering and a **Master's in Computer Science**, my **proficiency in C++** has been pivotal in roles at **Qualcomm** and **Samsung R&D** where I **developed key features** and **enhanced performance**, showcasing my deep **C++ expertise** and dedication to tech excellence.

TECHNICAL EXPERIENCE

Qualcomm

Toronto, ON

AI/DSP Embedded Software Engineer

May 2023 – Present

- Associated Skills: **C++**, **CDSP**, **Android**, Linux, Git, Gerrit, Docker, Bash, Confluence, Jenkins
- Advancing an **embedded framework** Hexagon Direct Link for AI-based processing on Android phones
- **Designing and developing** integration **modules** to **enhance framework efficiency** and effectiveness
- Conducting **performance testing** to ensure new modules meet power and speed requirements
- Designing **unit and functional tests** to ensure **thread-safety** and **scalability** of production code

University of Alberta

Edmonton, AB

Graduate Research Assistant Fellowship (GRAF)

Sep 2022 – April 2023

- Associated Skills: **C++**, **Python**, OpenCV, Jupyter Notebook, TensorFlow/Keras, Neural Networks
- Contributed to the Mitacs projects, focused on precise **card price prediction** for an e-commerce platform
- Built **OCR model** for player card details extraction, **boosting** card price prediction **accuracy by 1.5x**
- Researched Tree Branch segmentation, applied **advanced computer vision** for precise delineation

Samsung R&D

Noida, UP

Software Engineer

Sep 2020 - Aug 2022

- Associated Skills: **C++**, **Java**, **Android**, Linux, Git, Gerrit, Docker, Bash
- Part of the Camera App Team, **enhancing user experience** through innovative features and enhancements
- Key contributor to **Fun Mode feature development**, used **2.5+ billion times globally** post-release
- Solved problems related to **camera application** and specific modules for **OS upgrades**
- Conceptualized **20+ patent road-maps** as a part of the **Patent Idea Development Team**

Software Engineering Intern

Jan 2020 – May 2020

- Associated Skills: **Python**, NumPy, Pandas, Scikit-learn, TensorFlow/Keras, Neural Networks
- Engineered a cutting-edge camera application that leverages **real-time hand gesture recognition**
- **Amplified user experience** by optimizing intuitive interaction and **control efficiency by 25%**
- Delivered a remarkable **mAP** (Mean Average Precision) of **89.58%** coupled with an **accuracy rate of 92.60%**

ACHIEVEMENTS

- Attained **1st place** in Qualcomm's renowned **Global Intern Hackathon**
- Awarded Samsung **Employee of the Month**, for making noteworthy contributions to the company's success
- **Internship project** ranked in **top 10 globally** at Samsung for exceptional performance
- **Won Gold** in Regional Level **Indian Chess tournament**, showcasing strategic prowess on a national stage

EDUCATION

University of Alberta, *MS in Computer Science* – **GPA: 3.80/4.00**

Edmonton, AB | Sep 2022 - Dec 2023

Relevant Coursework: Image and Video Processing, AI in Multimedia, Computer Vision, AR/VR

Thapar University, *B.E in Electronics and Computer* – **GPA- 8.80/10.0**

Patiala, PB | July 2016 - July 2020

Relevant Coursework: Algorithms, Operating Systems, Object-Oriented Programming, Data Structures