Portfolio
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Ritika

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PROFESSIONAL SUMMARY

As a Master's student specializing in Multimedia at the University of Alberta,with hands-on experience in project development, proficient in **C++**, **Python**, **Machine Learning**, and **SQL**, and well-versed in **Data Structures**, I'm dedicated to pursuing excellence in technology and ready to make a meaningful impact in an internship opportunity.

TECHNICAL EXPERIENCE

Software Engineer   Pune,MH
Tata Consultancy Services   *May 2021 — Feb 2023*

Associated Skills: **C++**, **Java**, **SQL**, **Python**, **Linux**, **Git**, **Jira**
- Designed, coded, and debugged diverse software, meeting client specifications and project requirements
- Conducted comprehensive software testing, ensuring quality and reliability through unit and system testing
- **Collaborated** with clients to understand and translate business needs into precise technical specifications
- Utilized **analytical skills** to creatively and efficiently **solve complex** software development **problems**
- Successfully implemented **Agile methodologies**, significantly **increasing** team **productivity by 40%**

Intern   Mohali,PB
Center for Development of Advanced Computing (C-DAC)   *Jan 2020 — Apr 2020*

Associated Skills: **Python**, **Machine Learning**, **NLP**, **Computer Vision**, **Neural Networks**, **Deep Learning**
- Developed an innovative software solution for **enhanced user-system interaction**, focusing on efficiency
- Developed an **NLP-based sentiment analysis** model that demonstrated an impressive **87% accuracy rate**

PROJECTS

Cattle Detection │ *Python, C++, NumPy, Pandas, PyTorch, OpenCV, DETR, Tensorflow*
- Applied **DETR algorithm** for cattle detection, overcoming occlusion, small size, and diverse orientations
- Achieved **95% accuracy** in cattle detection, optimizing resources for effective early disease detection

Spell-Checking Text Editor │ *C++,Trees, Hash Sets*
- Designed and implemented an **advanced spell-checking** text editor with **improved correction efficiency**
- Employed **optimized hash sets** to identify and rectify spelling errors, resulting in a seamless user experience

Route Finder and Sorting Algorithm Visualisation │ *C++, Graphs and Paths, Dijkstra's Algo*
- Engineered a route planning system using **Dijkstra's algorithm** for highly efficient point-to-point navigation
- Implemented **highly efficient navigation solutions**, enhancing travel time and distance optimization
- Programmed a code that **visually demonstrates** sorting algorithms- **selection sort**, **merge sort** and **quick sort**

ACHIEVEMENTS

- Awarded TCS **Employee of the Month** for making noteworthy contributions to the company's success
- Commended for **exceptional performance** during internship at C-DAC, securing a top 3 project ranking
- Secured **1st place** in a competitive programming contest, showcasing strong programming acumen
- **Qualified** the challenging **GATE** exam, which assesses a comprehensive understanding of CS subjects

EDUCATION

University of Alberta, *MS in Computer Science – GPA: 3.80/4.00*   Sep 2023 - Dec 2025
Relevant Coursework: **AI in Multimedia, Deep Learning, Computer Vision, Image and Video Processing, AR/VR**

Punjabi University, *B.Tech in Computer Science & Engg.– CGPA- 8.20/10.0*   July 2016 - July 2020
Relevant Coursework: **Data Structures & Algorithms, OOPS, DBMS, Operating Systems, Web Development**