

Tanishk Sharma

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PROFESSIONAL EXPERIENCE

Center for Digital Media (CDM)

May 2024 – Aug 2024

AI Application Developer - Practicum — automatic speech recognition & GenAI with MS Azure

Vancouver, BC

- ◆ Engineered a game leveraging **LLMs & Speech to Text**, providing AI expertise and use-cases for non-technical stakeholders
- ◆ Utilized **Azure** with Linux based **Python FastAPI** backend for concurrent speech2text transcriptions with **latency <1 second**
- ◆ Implemented a simplified **RAG** approach using **State Aware - Dynamic Context Injection** on Gemini for real-time augments
- ◆ Engineered constraint prompts with **in-context learning** techniques to guide Gemini's output into machine-readable format

Rivian Automotive Inc

Jan 2023 – Apr 2024

Software Engineer - Co-op — vehicle infotainment platform on software defined vehicles

Vancouver, BC

- ◆ Engineered **end-to-end** solution for **Spotlight Project** of Q1-2024, **pre-delivering** feature by **4 weeks** to a **100,000+ users**
- ◆ Defined Rear Screen architecture using **MVVM** with **Dependency Injection**, ensuring high test coverage and maintainability.
- ◆ **Resolved 20% of tech-debt tickets** on large codebase in Android and QNX, solving **100+ bugs, 90+ MRs** into **production**
- ◆ Reduced resource usage by optimizing bottlenecks on search query for Spotify, TuneIn etc ensuring easy search while driving
- ◆ Utilized **CI/CD** pipelines on **Jenkins & GitLab** to build & validate system images weekly, catching potential issues pre-shipping
- ◆ Extended core **SDK modules** to add features beyond the standard framework in **Kotlin**, providing an intuitive user experience
- ◆ Self-initiated a **Python** automation project, reducing **OTA validation time by 90%**, saving software resources ~ **\$50,000 / yr**
- ◆ Accelerated developer onboarding through codebase training, instructing on CLI tools and hardware-specific procedures

Cradle Research Project @ SFU & Kings College London

Sep 2022 – Dec 2022

Android Software Developer — healthcare applications for underdeveloped countries

Vancouver, BC

- ◆ Conceived an **SMS-based packet relay** protocol to allow field workers to send **life-critical** requests without internet access
- ◆ Developed **microservice** for handling SMS and Internet across the entire system in **SpringBoot**, providing a scalable solution
- ◆ Refactored **5000+** lines of code to improve modularity and optimize architecture, enhancing app **response time by 64%**.
- ◆ Implemented a tiered permission system for **granular access** control, enhancing the security of confidential patient records

Press Monitor

May 2022 – Aug 2022

Automation Developer - Freelancing— press & media monitoring

Toronto, ON (Remote)

- ◆ Developed **Python** automation scripts to categorize news content using **AI-based** real-time video stream segmentation
- ◆ Enhanced using **iterative development**, eliciting client requirements and defining feature specifications, ensuring ease of use

EDUCATION

Bachelors of Science, Computer Science

Sep 2019 – Sept 2024

SIMON FRASER UNIVERSITY — Specialization in *Artificial Intelligence & Information Systems*

Vancouver, BC

Graduate Level Courses → Computer Vision, Affective Computing, Advanced Machine Learning

PROJECTS

1Food - A restaurant management & client engagement app with a simple recommendation engine (**Kotlin, Java, Firebase**)

eMosh - Web App with Multimodal AI that infers human emotions based on expressions and tone (**Python, Flask, FFmpeg**)

Crypto Price Predictor - Comparative study of multiple supervised, unsupervised and deep learning models metrics (**Python**)

Hoggett - An animal tracking web app - MVC, DOM, dynamic UI, form validation, MapBox APIs (**TypeScript, AngularJS, MapBox**)

SKILLS

Programming → Kotlin, Java, C/C++, SQL, Haskell

Scripting → Python, HTML/CSS/TypeScript, AngularJS

Operating Systems → Windows, Linux (Ubuntu, Debian)

Tools → Git, Jira, Confluence, IntelliJ, Figma, Gradle

Software Engineering → Object Oriented Design, Data Structures, Algorithms, Problem Solving, Complexity Analysis, Unit Testing, Software Design Principles, Technical Documentation, Design Patterns