

Rajnish Joshi

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EDUCATION

SIMON FRASER UNIVERSITY BASc COMPUTER ENGINEERING
Sep 2019 - Aug 2024 | Burnaby, BC

EXPERIENCE

SIERRA WIRELESS

MANUFACTURING HARDWARE/ SOFTWARE ENGINEER

Sep 2021 - May 2022 | Richmond, BC

- Worked on a team of 5, aimed to ensure that manufacturing of routers and modules was operational
- Coded embedded software/firmware that would be used on DUTs in the lab and factory
- Debugged PCAs/PCBs, worked with radio, signals and telecommunications, and test fixtures.

PROJECTS

AUXILIARY VISION

PERSONAL (HACKATHON)

February 2022 | SFU StormHacks

Worked with a team of 4 to create an app aimed to improve accessibility issues for individuals that are blind or with visual impairments in identifying everyday objects, text on labels, and reading PDFs using Computer Vision.

TENSOR PROCESSING UNIT ASIC DESIGN

ENSC 252: DIGITAL LOGIC AND DESIGN

Simon Fraser University | Burnaby, BC

Domain specific architecture aimed at improving the processing speeds of computers that do machine learning by pipelining data in systolic arrays. Four components, written in VHDL, MMU, WRAM, Activation Unit, and the Control Unit.

GADGET BIKE HELMET

ENSC 105W/100W: ENGINEERING SCIENCE AND SOCIETY

Simon Fraser University | Burnaby, BC

Bike helmet with various EM sensors, an Arduino, and C++ script designed to provide riders with the ability to indicate turn signals with just the move of their hands, as well as give them blind spot detection warning.

COURSEWORK, SKILLS AND INVOLVEMENTS

COURSEWORK

Data Structures and Algorithms
Electronics
Microprocessor Architecture
Numerical Analysis
Digital Logic and Design
Machine Learning

PROGRAMMING

Proficient:

- Python • C/C++
- MATLAB • JavaScript • VHDL
- NoSQL/SQL • HTML/CSS

TECHNICAL SKILLS

Electronic Test Instrumentation:

- Spectrum analyzers and function generators
- Oscilloscopes
- Wideband Radio Communication testers
- DMMs, DC Loads, Power Supply

Motors, Actuators, and Sensors
Arduino and Raspberry Pi
Radio Test Fixture Design
PCB/PCA soldering, debugging

TECHNOLOGIES

- SPICE • React • Android Studio • Visio
- Anaconda3

INVOLVEMENTS

Engineering Science Student Society
VP Social 2021

- Manage events, and gatherings for engineers
- Won Engineering Undergraduate Student Society Award for work

Lions Park Animal Hospital
Volunteer

- Working with veterinarians to ensure both animals and clients needs are met