Parniyan Namazi Fard

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Technical Skills

Languages: C, C++, Python, MATLAB, VHDL
Frameworks: ModelSim, Intel Quartus Prime, Visual Studio, Eclipse, Git
Design: Altium Designer, SolidWorks, AutoCAD, LTspice
Lab Equipment: Oscilloscopes, Multimeters, Function Generators, Power Supplies, Soldering Tools

Technical Projects

AM Radio Receiver Design Nov 2025 - Dec 2025
- Built and tested a functional AM radio receiver on a breadboard, implementing an LC tuner, diode-based envelope detector, and op-amp audio amplifier to successfully tune and demodulate broadcast signals in the 550–1600 kHz band.
- Validated circuit performance through hands-on testing with an oscilloscope and headphones, adjusting component values to optimize resonance, bandwidth, detector ripple, and audio clarity.

Custom ESP32 PCB Design Jun 2025 – Aug 2025
- Designed a 4-layer ESP32 development board with USB-C power input, onboard voltage regulation, and peripheral expansion headers, capturing the schematic and completing PCB layout in Altium while resolving DRC errors and applying clearance rules.
- Created IPC-compliant footprints and 3D models, integrated into schematic and layout, and finalized with manufacturability checks.

Automatic Plant Watering System May 2025 – Jul 2025
- Developed an automated plant irrigation system that monitored soil and climate conditions, displayed live status updates, and adjusted watering cycles to make plant care easier and more efficient.
- Reduced manual effort by 40% and water use by 15% by integrating sensor feedback with indicator lights and adaptive watering control.

Automatic Door with Facial Recognition Sep 2024 – Dec 2024
- Collaborated in a team of 7 to design and build a Raspberry Pi–based keyless door system using OpenCV for facial recognition access.
- Programmed control logic in Python for real-time access, motion-activated lighting, and manual override, testing multiple recognition models for optimal accuracy and speed.
- Integrated sensors and calibrated servos through iterative debugging to enhance circuit reliability and overall system performance.

Touch-Activated Electronic Dice Oct 2024 – Nov 2024
- Soldered and assembled 30+ surface-mount and through-hole components on a PCB by interpreting schematic diagrams and verifying connections.
- Tested and debugged LED sequencing logic using a multimeter, improving circuit functionality and reliability.

Hackathons & Competitions

StudySpot – WiE x ESSS Hackathon Oct 2025 – Nov 2025
- Developed a real-time web app that displays live campus study space availability using color-coded occupancy indicators and user-submitted updates.
- Built a working prototype within 12 hours as part of a 4-person team, focusing on responsive interface design and real-time data integration.

SFU Engineering Design Competition Nov 2024 – Dec 2024
- Designed and built a lightweight structure in a 4-person team to transport materials across a 3–5 m gap under timed conditions.
- Applied rapid prototyping and iterative testing to refine design, meet competition constraints, and improve performance.

Leadership Experience

Electrical Team Member Sep 2025 – Present
WLF Gardens, Hydroponic Labs
- Contributed to the electrical design and implementation of hydroponic test garden systems, including power distribution, sensor integration, and microcontroller interfacing to improve automation and system reliability.
- Supported circuit design, soldering, and system integration while developing data collection and plant monitoring systems through embedded programming in a multidisciplinary team.

Internal Coordinator Aug 2025 – Present
Axis Consulting, Simon Fraser University
- Organized and executed monthly social and networking events for 50+ members, strengthening collaboration within and beyond SFU.
- Coordinated newsletter submissions, event logistics, and workshops to improve organizational efficiency and member engagement across portfolios.

Skate Instructor Jan 2021 – Present
West Vancouver Community Centre, West Vancouver, BC
- Delivered structured group and private skating lessons for 30+ children and youth per session, emphasizing technical skill development, confidence, and safety.
- Provided demonstrations, individualized feedback, and ice safety oversight while promoting teamwork and progression.

Education

Bachelor of Applied Science (Honours) in Electronics Engineering Sep 2024 – Present
Simon Fraser University, Burnaby BC | GPA: 3.49/4.33