Daniel Khataiepour

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EDUCATION

University of Waterloo

Waterloo, ON

Bachelor of Applied Science (B.A.Sc.) in Electrical Engineering

Sept 2023 - Present

EXPERIENCE

Freelance Full-Stack Developer

Aug 2024 - Present

Self-Employed

Remo

- Built 5 full-stack websites with ReactJS, HTML, CSS, using back-end logic to improve UX and efficiency.
- Optimized UI/UX design, ensuring 100% responsiveness across desktops, tablets, and mobile screens.
- Boosted client website traffic by 30%, implementing SEO strategies for improved search visibility.
- Earned \$1000+ in revenue, expanding a network through referrals and university connections.

Cyber Risk Management Administrator

Jan 2024 – Apr 2024

Toronto District School Board

Toronto, ON

- Led 100+ cyber risk assessments, reducing security vulnerabilities by 50% in cloud and online services.
- Conducted penetration testing, mitigating 95% of critical vulnerabilities across TDSB systems.
- Resolved 10+ system vulnerabilities, preventing data breaches and strengthening security measures.

Waterloo Experience Accelerate Program CO-OP

Jan 2023 – Apr 2023

University of Waterloo/Microsoft

Waterloo, ON

- Led a team of 6 to develop a medical software project, achieving 100% on-time delivery.
- Earned Microsoft AZ-900 & AI-900 certifications, showcasing cloud computing and AI fundamentals.
- Developed an AI-driven solution with interdisciplinary teams, enhancing performance via data analysis.

Projects

Li-Po Battery Circuit Charger PCB | KiCad, Power Electronics, PCB Layout

GitHub Link

- Designed and fabricated a Li-Po battery charger PCB in KiCad, achieving 99.9% charging efficiency.
- Integrated MCP73831 for precise charge control, increasing battery lifespan by 30%.
- Conducted load testing & power analysis, ensuring $\pm 1\%$ voltage accuracy across varying loads.

5V Voltage Regulator PCB | KiCad, Power Stability, Circuit Design

Project Blog

- Developed a linear voltage regulator PCB with LM317, maintaining <1% output fluctuation.
- Optimized capacitor filtering & heat dissipation, reducing ripple voltage by 85%.
- Simulated and validated load regulation, achieving 99.5% voltage stability under varying conditions.

Hand Tracker Computer Vision | Python, OpenCV, Real-Time Processing

Video

- Engineered a real-time AI hand tracker with OpenCV, achieving 98.5% gesture recognition accuracy.
- Optimized a CNN model, reducing latency by 40% for smoother interaction.
- Implemented Python landmark tracking, achieving >95% recognition accuracy across diverse poses.

TECHNICAL SKILLS

Software & Programming Languages: C, C++, C#, Python, Java, JavaScript, HTML, CSS, MATLAB, VHDL. EDA & CAD Tools: Altium Designer, KiCad, EasyEDA, LTSpice, AutoCAD, SolidWorks, OnShape.

Microcontroller & Embedded Development: STM32 IDE, ESP32, Raspberry Pi, BetaFlight, Arduino IDE.

Hardware & Testing Equipment: PCB Assembly, Soldering, Oscilloscope, Digital Multimeter, HV Power Supply.

Communication Protocols: I2C, SPI, isoSPI, USB, UART, CAN, RS-232/485.

Software & Frameworks: Git, OpenCV, NumPy, ReactJS, Figma, Google Analytics, Google Colab, Microsoft Excel.