

AHAZ IQBAL

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Summary

Motivated Electrical Engineering student with strong problem-solving and analytical skills, and a solid foundation in mathematics and physics. Passionate about applying technical knowledge to develop innovative solutions for real-world challenges.

Education

Bachelor of Electrical Engineering

January 2024 – December 2027

University of New South Wales

- Clubs & Societies: ENGSOC, RAMSOC, ELSOC, BLUSAT
- Awarded **1st Place & First-Year Excellence Award** at Buildathon competition (RAMSOC)

Professional Experience

Digital Signal & Processing Engineer

June 2025 – Present

BLUSAT UNSW

- Generated PWM signals using a Raspberry Pi to control a motor via a motor driver, interpreting datasheets for correct pin configuration
- Contributed to ground station circuit design integrating microcontrollers, PCB prototyping boards, and SDR++ for signal processing
- Fabricated and assembled electrical connections through crimping and soldering

Lab Demonstrator – ELEC1111

May 2026 – Present

University of New South Wales

- Supervised lab sessions for first-year electrical engineering students
- Guided students in the use of oscilloscopes and multimeters for signal measurement, and waveform interpretation
- Explained challenging concepts in DC and AC circuit theory, bridging the gap between theoretical fundamentals and hands-on lab application

Subcommittee Member

February 2026 – Present

ELSOC, UNSW

- Co-developed and facilitated a PCB design workshop using KiCad, covering schematic capture and layout
- Designed and delivered an oscilloscope workshop on triggering, voltage/time scaling, and signal offset

Private Tutor

January 2024 – December 2025

Physics & Chemistry (Part-Time, Remote & In-Person)

- Adapted explanations to individual student needs; developed communication, patience, and time-management skills
- Leveraged analytical thinking to simplify complex subjects while managing lessons under time pressure

Customer Service Volunteer

May 2021 – September 2021

The Salvation Army Australia

- Awarded an Appreciation Letter for outstanding volunteer work in customer service, packing, and donation coordination

Relevant Projects

STM32 PCB

May 2026

- Designed a custom STM32-based PCB from schematic capture through PCB routing using KiCad
- Implemented support circuitry: decoupling capacitors, crystal oscillator, reset circuitry, and USB interface
- Applied PCB layout best practices for power routing, grounding, differential USB traces, and signal integrity

Electrical Component Identifier

March 2026 – April 2026

- Developed a circuit distinguishing resistors, capacitors, and open circuits using voltage/current measurement techniques
- Performed circuit simulation, prototyping, and debugging during hardware development

ECG Circuit

July 2025 – August 2025

- Designed and implemented an ECG signal acquisition circuit; simulated with LTspice
- Built analog front-end circuitry including amplification, filtering, and noise reduction stages