

Adam R. Sbahi

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United States Citizen

EDUCATION

Virginia Tech – B.S. in Computer Engineering

GPA: 3.09 | Graduation Date: May 2027

Relevant Coursework: Circuits and Devices, Computational Engineering, Digital Systems, Embedded Systems

CURRENT EXPERIENCE

Therapeutic Ultrasound and Non-Invasive Therapies Lab – Virginia Tech | *August 2025 - Present*

Undergraduate Research Assistant

- Programmed FPGA based pulse generator to prepare for histotripsy experiments. Studied verilog code to determine how to use the FPGA board to help output pulses for ultrasound treatment in various ways.
- Built and soldered custom PCB amplifier circuits to use in histotripsy experiments.

Delta Epsilon Mu – Virginia Tech | *February 2024 - Present*

Member

- Collaborated with peers to organize networking events, guest speaker presentations, and workshops focused on professional development in health fields.
- Developed leadership skills through committee roles, including public relations, enhancing organizational and teamwork capabilities.

WORK EXPERIENCE

Powergrid Electric LLC Fredericksburg, VA | *April 2019 - December 2024*

Apprentice

- Assisted in the installation of electric vehicle chargers, lighting systems, and fire safety equipment, including smoke detectors and fire phones, keeping compliance with safety standards and regulations.
- Contributed to various electrical projects by performing tests and inspections, enhancing system reliability and functionality.

Freestate Electric Springfield, VA | *May 2024 - June 2024, June 2025-August 2025*

Intern

- Supported project management activities by tracking progress, preparing reports, and presenting findings to senior management.
- Conducted on-site visits to supply project materials delivery and ensure seamless workflow continuity.
- Conducted assessments of multiple large-scale project blueprints to accurately determine material requirements and ensure efficient on-site application.

HL Global Inc. Washington DC | *June 2025*

OTA Field Testing (RF Engineering)

- Involved setting up temporary test sites across various locations in the Washington, DC area, measuring LTE and 5G performance using different Fixed Wireless Access (FWA) antenna systems.
- Recorded key metrics like download/upload speeds and latency values and analyzed how factors like antenna type and placement affected signal quality.
- Conducted performance evaluations across products to see high performing vs underperforming antennas.

CURRENT PROJECTS

Automatic Digital Blood Pressure Cuff– Virginia Tech | *August 2025 - Present*

- Designed and started building a low-cost oscillometric blood-pressure cuff that accurately measures blood pressure and heart rate by reading oscillometric pulses from waveform data
- Built a circuit using an INA126 op-amp and programmed an Arduino Uno for automated cuff inflation/deflation, pressure calculations, and data readings

SKILLS

- C, C++, Verilog, Circuit Analysis, Circuit Construction. LTE/5G field testing, Microcontroller programming