Sarvesh Patham

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EDUCATION

University of Illinois Urbana Champaign   Expected Graduation Date: **May 2028**

Bachelor of Science in Electrical Engineering   *GPA: 4.0/4.0*

- Relevant Coursework: ECE 110 (Circuit Analysis and Design), ECE 120 (Computing and Logic)

The Academy for Math, Science, and Engineering   Graduation Date: **June 2024**

Highschool Diploma   *GPA: 101/110*

- Engineering-focused public school; coursework including circuit design, product design, metal and woodworking, product entrepreneurship, and 3D modeling

EXPERIENCE

3D Pets   **Oct. 2023 – April 2024**

Engineering Intern   *Bloomingdale, NJ*

- Machined/constructed prosthetics to consumer standards; increased production rate by 10 percent
- Manufactured body molds and developed 3D Model for prosthetics using LiDAR scanning
- Developed an organizational standard of prosthetic parts for a newly constructed workshop

Undergraduate MRI Researcher   **May 2025-Present**

UIUC - Center for Electric Machinery and Electromechanics (CEME)

- Currently aiding design of a low magnetic field portable MRI for cheaper point-of-care usage
- Tuned RF pulse using different test frequencies to ensure real frequency matched desired one
- Researching Rx/Tx switching and working on design adjustments to increase SNR

NJIT - STEM for Success   **Sept. 2023 – March 2024**

STEM for Success Internship   *Remote*

- Researched electroencephalograms (EEGs) with NJIT Professors Dr. Lipuma and Dr. Bukiet
- Composed an introductory article discussing EEGs and their possible functions in prosthetics
- Presented information at the NJIT STEM for Success conference in front of virtual audience

ACTIVITIES

Neurotech

VR Neurofeedback

- Processing EEG data from the frontal lobe/prefrontal cortex by coding digital filters for VR use
- Applying signal processing techniques including Fast Fourier Transform and wavelet decomposition
- Cleaning noise from signals using filters including notch, bandpass, and high/low frequency filters

SKILLS

Digital: Fusion360/Onshape, Java/C/C++, Arduino, Linux, HTML, Python

Hardware: Soldering (Advanced), Electrical Design (Advanced)

Soft Skills: Communication, Teamwork, Attention to Detail, Role Delegation, Reliability