KEVIN TRAN

+1 (404) 345-9500 | kevin.b.tran@vanderbilt.edu | Nashville, TN, USA | Portfolio

PROFESSIONAL SUMMARY

Interdisciplinary engineer with a foundation in Biomedical Engineering and minors in Electrical and Computer Engineering, Digital Fabrication, and Computer Science. Experienced in hardware design, signal processing, and data analysis. Adept at applying technical expertise to solve complex challenges with a focus on innovation and collaboration. Strong problem-solving skills and familiarity with supply chain optimization, stakeholder management, and inventory control in dynamic environments.

EDUCATION

Vanderbilt University **August 2021 - May 2025**

Bachelor's, Biomedical Engineering

- Machine Learning, AI, Digital Systems, Signal Processing, Data Structures, System Physiology, Biomedical Instrumentation, 3D Computer Drafting, Python Programming, Digital Fabrication, Additive Manufacturing

CERTIFICATIONS

SolidWorks Associate Certificate: Mechanical Design

PROJECTS & OUTSIDE EXPERIENCE

EMG-Controlled Bionic Hand **Nashville, TN, USA**

Biomedical Design Engineer *January 2024 - May 2024*

- Developed a bionic hand controlled by EMG signals, integrating bio-signal processing techniques.
- Programmed Arduino for precise motor control and designed components using SolidWorks and 3D printing.
- Enhanced user functionality through iterative design based on real-time feedback.
- *Link to project*

Pediatric Blood Collection Tube Development **Nashville, TN, USA**

Biomedical Engineer *August 2024 - May 2025*

- Developed and prototyped a resin-printed pediatric blood collection tube, optimized for consistent 1 mL blood draw.
- Led design iterations, utilizing 3D printing, vacuum forming, and attempted injection molding techniques to refine the product.
- Conducted testing and analysis to ensure compatibility with automation systems, improving blood draw efficiency and reducing patient discomfort.
- Collaborated with mentors and sponsors to iterate on design, ensuring cost-effectiveness and functionality.

Robotics Club **Nashville, TN, USA**

Mechanical Team Lead *August 2021 - May 2023*

- Led the mechanical design for NASA Space Rover competition, placing 2nd overall.
- Designed and prototyped a deposition bucket and chain tensioning system using OnShape CAD and 3D printing to address torque challenges.

SKILLS

Programming & Data Analysis: Python, MATLAB, C++, SQL, Machine Learning, Signal Processing, Data Visualization.
Tools & Technologies: SolidWorks (Certified), OnShape CAD, Arduino, Raspberry Pi., Fusion 360
Analysis & Design: Statistical Modeling, Signal Processing, User-Centered Design
Soft Skills: Stakeholder Collaboration, Communication, Teamwork
Languages: Vietnamese, English

AWARDS & LEADERSHIP

- **NASA Space Rover Competition | 2nd Place (2021):** Led mechanical design innovations contributing to the team's high placement.
- **Vanderbilt Cheerleading | Rookie of the Year (2022):** Performed at football and basketball games, demonstrating teamwork, dedication, and time management.