

MATTHEW VUONG

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EDUCATION

Tulane University – Bachelor of Science in Engineering New Orleans, LA
Major: Biomedical Engineering | Minor: Electrical Engineering Graduation May 2026
3.997 GPA | Research and Innovation Award | Distinguished Scholars' Award (\$31,000/year) | Dean's List (all semesters)

Relevant Coursework: Biomed. Engineering Design, Product and Experimental Design, Data Science, Signals & Systems, Biomed. Electronics, Optics, Mechanics of Materials, Fluid Mechanics, Anatomy, Quantitative Physiology

EXPERIENCE

Regeneron Pharmaceuticals Inc.

Research & Development Intern

Tarrytown, NY
May 2025 – August 2025

- Optimized flow rates, viscosities, and other process parameters to develop a new in-house drug delivery process for controlled release of proteins
- Presented research and recommendations for improvement to senior leadership

Tulane University

Supplemental Instruction (SI) Captain

New Orleans, LA
May 2025 – Present

- Organized and hired SI Leaders for the Fall 2025 semester
- Facilitated communication between the Academic Learning & Tutoring Center (ALTC) and SI Leaders

Supplemental Instruction (SI) Leader

Aug 2024 – May 2025

- Organized voluntary review sessions to reinforce learning methods and improve GPA outcomes for students in ENGP2010 (Electric Circuits) and BMEN2730 (Biomedical Electronics)
- Fostered a comfortable and engaging learning environment to improve session attendance from 2% in Fall 2023 to 40% in Fall 2024
- Coordinated with other SIs to share successful teaching strategies and act on constructive feedback from students

Undergraduate Research Assistant – Biomedical Acoustics Lab

May 2024 – Present

- Developed vibrational testing protocol for a blood coagulation measurement device to validate performance and process data using regression functions and MATLAB
- Co-authored a poster on medical device testing for various materials, humidities, and vibrations
- Presented biweekly updates on data and analyses to device parent company executives and participated in troubleshooting and discussions to improve device performance

Undergraduate Research Assistant – Organic Synthesis Lab

Sep 2022 – May 2024

- Improved biological polymer synthesis by conducting background research, learning laboratory techniques, and eventually reducing the protocol time by 20%
- Volunteered in educational outreach chemistry demonstrations for Girls in STEM at Tulane (GIST), Boys at Tulane in STEM (BATS), and Upward Bound
- Participated in weekly lab meetings to communicate progress and learn from other researchers

LEADERSHIP

Tulane University

Theta Tau Engineering Fraternity – Treasurer

New Orleans, LA
Nov 2024 – Present

- Managed a budget of about \$35,000 split between 15 chairs for local and national spending
- Collected dues and collaborated with members of executive board to provide financial aid for brothers in need
- Communicated budget expectations with chairs to ensure proper spending

SKILLS

Computer: Deep Learning (certificate), MATLAB (knowledgeable), Python (basic), Finite Element Analysis (FEA), Fusion360 (basic), Multisim

Laboratory: Hemorheology, GraphPad Prism, UV/Vis and NMR Spectroscopy, HPLC, Oscilloscope/Multimeter

Activities: Tau Beta Pi Engineering Honor Society, Theta Tau, Tulane University Orchestra