Vi T. Vo

PhD Candidate
Department of Mechanical Engineering
Boston University

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EDUCATION

Boston University, PhD Mechanical Engineering, *GPA: 3.75/4.00* 09/2023 – Present
Advised by Prof. Tommaso Ranzani

Rice University, BS Mechanical Engineering, *GPA: 3.75/4.00* 05/2023
Minor in Computational and Applied Mathematics and Operations Research (CMOR)

PROFESSIONAL EXPERIENCE

Boston University, *Research Assistant for Prof. Tommaso Ranzani* 09/2023 – Present
Developing an underwater, octopus-inspired soft robotic platform for efficient seabed locomotion.

Rice University, *Undergraduate Researcher for Prof. Daniel J. Preston* 09/2021 – 08/2023
Designed a pneumatically actuated sheet-based fluidic diode fabricated using layered fabrication process to enable electronics-free control of soft robots and devices.

University of Southern California, *RAS REU Student for Prof. Maja Matarić* 06/2022 – 08/2022
Adapted the open-source soft social robot "Blossom" as a study companion for college students with ADHD; the focus is on implementing user-designed behaviors to improve the robot's social and functional perception.

Georgia Institute of Technology, *Undergraduate Student Researcher for Chloé Arson* 05/2020 – 08/2020
Developed an algorithm to calculate the normal vectors of the tangent plane for a selected face of aggregates to maximize contact area between adjacent aggregates.

PUBLICATIONS IN PEER-REVIEWED JOURNALS

J1. L.T. Gaeta, **V.T. Vo**, S.Y. Lee, S. Raste, M. Venkatesam, J. Rogatinsky, M.D. Albaryrak, T. Ranzani, "Magnetic Metal Jamming," *IEEE Robotics and Automation Letter,* under review.

J2. **V.T. Vo**, L. Zamora Yañez, C. Muter, A.M. Moran, M. Saxena, G. Matthews, T. Ranzani, "Soft, Fiber-reinforced Bellow Actuators," *IEEE Robotics and Automation Letter,* 10(2), 2025.

J3. A.M. Moran,* **V.T. Vo,*** K.J. McDonald, P. Sultania, E. Langenbrunner, J.H.V. Chong, A. Naik, L. Kinnicutt, J. Li, T. Ranzani, "An Electropermanent Magnet Valve for the Onboard Control of Multi-DoF Pneumatic Soft Robots," *Communications Engineering,* 3(1), 2024. *equal contribution

J4. **V.T. Vo**, A. Rajappan, B. Jumet, M.D. Bell, S. Urbina, D.J. Preston, "Sheet-based Fluidic Diodes for Integrated Circuitry in Soft Robotics," *Advanced Intelligent Systems,* 6(7), 2024. *(Featured on the inside front cover).*

CONFERENCE PRESENTATIONS

C1. **V.T. Vo**, A. Rajappan, B. Jumet, M.D. Bell, D.J. Preston, "Sheet-based Fluidic Diodes for Integrated Circuitry in Soft Robotics," *Society of Engineering Science (SES) Annual Technical Meeting,* Minneapolis, MN, Oct. 8-11, 2023.

C2. **V.T. Vo**, A. Rajappan, B. Jumet, M.D. Bell, D.J. Preston, "Sheet-based Fluidic Diodes for Integrated Circuitry in Soft Robotics," *Rice Undergraduate Research Symposium (RURS),* Houston, TX, April. 12, 2023.

AWARDS

NSF Graduate Research Fellow 2023 - 2027
Inclusion @ Robotics Science and Systems (RSS) Fellowship Program 2023
Boston University Distinguished Mechanical Engineering Fellowship 2023
Rice Undergraduate Scholars Program (RUSP) Scholar – Cohort of 25; receive $1000 funding towards senior research project and graduate school-related expenses. 2023
Cy-Fair Educational Foundation (CFEF) Scholarship - Robert Adam Family Endowment VIII – $10,000 – Awarded to Cypress-Fairbanks ISD students with scholarship based on activities/leadership, academics, and financial needs. The scholarship provide $10,000 over 4 total semesters of undergraduate study. 2019

MENTORSHIP

Graduate Students Advised

Casper Muter, Boston University (06/2024 - 08/2024, Current position: Biotex)
RAS Master's Student at Boston University
Research focus: Bioinspired robotics, soft actuator, soft robotic fabrication.

Manvi Saxena, Boston University (09/2023 - 05/2024, Current position: Ph.D. student at University of Michigan)
RAS Master's Student at Boston University
Research focus: Bioinspired robotics, soft actuator.

Jung Hong Vince Chong, Boston University (09/2023 - 05/2024)
Mechanical Engineering Master's Student at Boston University
Research focus: Bioinspired robotics, material intelligence, low-level fluidic control, soft robots and devices.

Eric Davis, Boston University (10/2024 - Present)
Mechanical Engineering Student at Boston University. *Awarded UROP for Spring 2025.*
Research focus: Bioinspired robotics, fluidic control, sensor design.

Courtney Chavez, Oregon State University (06/2024 - 08/2024)
REU program at Boston University.
Research focus: Design of a GUI for control board for pressure regulation of fluidic soft robots.

Zaid Bhatti, Boston University (01/2024 - 06/2024)
Mechanical Engineering Student at Boston University
Research focus: Design of a flow rate sensor using a hyperelastic beam.

Cindy Su, Boston University (03/2024 - Present)
Mechanical Engineering Student at Boston University
Research project: Layer-based fabrication of a soft actuator for cephalopod-inspired robot.

TEACHING EXPERIENCE

Boston University MECH 310 – Instrumentation and Measurement Techniques, *Graduate Student Assistant* Fall 2024
Rice University MECH 472 – Thermal Design, *Undergraduate Teaching Fellow* Fall 2022, 2023

COMMUNITY INVOLVEMENT

Boston University Material and Science Engineering Colloquium Series, *Student host* 03/2024
Boston University Mechanical Engineering PhD Open House, *Student volunteer* 02/2024
Boston University Graduate Women in Science and Engineering Mentoring Circles Program, *Graduate mentor* 09/2023-present

PROFESSIONAL ACTIVITIES

Service as Peer Reviewer
IEEE Transactions on Robotics (T-RO)
IEEE Robotics and Automation Letters (RA-L)
Device: Cell Press

ADDITIONAL SKILLS

Software Skills: SolidWorks, MATLAB, ABAQUS, Python, C, TensorFlow, EAGLE, LabVIEW, Adobe Creative Cloud Suite.
Technical Skills: 3D printing, laser cutting, manual lathe and mill machining, vinyl cutting.