

Michelle H. Nguyen

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EDUCATION

2020-Present

Ph.D. (candidate), Department of Biomedical Engineering
Johns Hopkins School of Medicine
Area of Concentration: Biomedical Data Science

2016-2020

B.S. Department of Biomedical Engineering, Honors College
Magna cum laude
Virginia Commonwealth University
Area of Concentration: Biomaterials and Biomechanics, Minor:
Mathematics

HONORS & AWARDS

2021-2022

NIH/NCATS ICTR Pre-doctoral Clinical Research Training Grant,
TL1 TR003100

2021

AMIA Student Design Challenge Finalist

2020-2021

NIH/NIGMS Pre-Doctoral Training Program in Computational
Medicine, CMT32

2019-2020

Tau Beta Pi Scholarship

2017-2019

Western Union Global Foundation Scholarship

2017

VCU Launch Award

2016-2020

VCU Provost Scholar

RESEARCH EXPERIENCE

2020- Present

Research Assistant, Department of Biomedical Engineering, Johns
Hopkins School of Medicine, Baltimore, MD, PI: Dr. Casey Overby
Taylor

2018-2020

Undergraduate Research Assistant, Department of Biomedical
Engineering, Virginia Commonwealth University School of
Engineering, Richmond, VA, PI: Dr. Seth Weinberg

2017-2018

Undergraduate Research Assistant, Department of Biomedical
Engineering, Virginia Commonwealth University School of
Engineering, Richmond, VA, PI: Dr. Raiyan Zaman

TEACHING EXPERIENCE

Teaching Assistant

Biomedical Data Design (Fall 2022-Spring 2023)

Teaching Assistant

Honors Rhetoric (Fall 2017-Spring 2020)

PAPERS

Wang N., Lu Y.L., Treewaree S., Zirikly A., **Nguyen M.H.**, Agarwal B., Shah J., Stevenson J.M., Taylor C.O. (2024). Prompt Engineering to Generate Synthetic Patient Portal Drug-Related Communications. *Journal of American Medical Informatics Association* (*Submitted).

Nguyen, M.H., Sedoc, J., & Taylor, C. O. (2023). Usability, engagement, and report usefulness of chatbot-based family health history data collection: Mixed-methods analysis. *Journal of Medical Internet Research* (*In Review). <https://doi.org/doi:10.2196/55164>

Soley N., Klein A., Taylor C.O., **Nguyen M.**, Ewachiw G., Shah H., Bodurtha J. Feasibility of the Genetic Information Assistant Chatbot to Provide Genetic Education and Study Genetic Test Adoption Among Pancreatic Cancer Patients at Johns Hopkins Hospital. *AMIA Jt Summits Transl Sci Proc.* 2023 Jun 16;2023:497-504. PMID: 37350913; PMCID: PMC10283105.

PRESENTATIONS

Oral presentations:

- | | |
|----------------|--|
| November 2024* | “Strolr: An LLM-enabled Chatbot to Support Pregnant Women’s Quick and Easy Information Seeking from Trustworthy Sources.”
AMIA National Symposium 2024, San Francisco, CA (*Submitted) |
| November 2024* | “Automated Genetic Counseling Efficiency Measure Extraction with Rules-based Natural Language Processing Methods.”
AMIA National Symposium 2024, San Francisco, CA (*Submitted) |
| July 2024 | “Enhancing FHx collection and documentation with a chatbot and NLP pipeline.” Doctoral Consortium. International Conference on Artificial Intelligence in Medicine. Salt Lake City, UT. (Accepted) |
| November 2021 | “mAMIA: mHealth dashboard to support pregnant women’s health information seeking and emotional and social wellbeing.”
AMIA National Symposium 2021, San Diego, CA |

Poster presentations:

- | | |
|---------------|--|
| March 2023 | “Randomized Intervention Study of Form-based and Chatbot-based Methods for Family History Data Collection”
AMIA Informatics Summit 2023, Seattle, WA. |
| March 2023 | “Detecting Phenotypes Among Patients Suspected of Rare Mendelian Disorders”
AMIA Informatics Summit 2023, Seattle, WA. |
| November 2022 | “Piloting Family Health History Chatbot with Crowd-Sourced Data Collection”
AMIA National Symposium 2022, Washington, D.C. |
| April 2022 | “Design and Implementation of Web-based Methods for Family Health History Collection”
ACTS Translational Science 2022, Chicago, IL |
| May 2018 | “Modeling Heart Rate Variability with ECG-based Patient Data”
Honors Summer Undergraduate Research Program, Richmond, VA |
| April 2017 | “Piano Practice as Pediatric Multiple Sclerosis Therapy”
9 th VCU Poster Symposium for Undergraduate Research and Creativity, Richmond VA |

RESEARCH SUPPORT

Completed

2021-2022

Pre-doctoral fellowship - TL1 TR003100. NIH/NCATS

2020-2021

Pre-doctoral fellowship - CMT32. NIH/NIGMS

OTHER EXPERIENCE

2018-2020

VCU Engineering Student Council Executive Board Member

2018-2020

Tau Beta Pi Epsilon Chapter Vice President

2017-2020

Co-Editor-in-Chief and Webmaster of Auctus: The Journal of Undergraduate Research and Creativity at VCU

2019

FIRST Chesapeake NextUP RVA Robotics Instructor, Richmond, VA