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EDUCATION

2020-Present — **Ph.D**. (candidate), Department of Biomedical Engineering
Johns Hopkins University School of Medicine
Area of Concentration: Biomedical Data Science
Expected graduation: May 2026

2020-2024 — **M.S.**, Department of Biomedical Engineering
Johns Hopkins University School of Medicine

2016-2020 — **B.S.** Department of Biomedical Engineering, Honors College
Magna cum laude
Virginia Commonwealth University
Area of Concentration: Biomaterials and Biomechanics, Minor: Mathematics

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

PAPERS

Nguyen M.H., Chan, K., Sedoc, J., Ferryman, K., Hamosh, A., Taylor C.O. Consumer and provider perspectives on patient-facing LLM-augmented family health history collection chatbot. [In preparation]

Nguyen M.H., Soley N., Zirikly A., Taylor C.O. Improving quality of family health history structured information retrieval with ontology-augmented large language model retrieval. [In preparation for BioNLP @ ACL 2026]

Nguyen M.H., Applegate C., Murray B., Zirikly A., Tichnell C., Pendleton C., Gordon C., Yanek L.R., James C.A. Taylor C.O. (2025). Generating Real-World Evidence of Genetic Counseling Efficiency with Natural Language Processing. Journal of the American Medical Informatics Association. https://doi.org/10.1093/jamia/ocaf190

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 Biomedical Informatics.* DOI: 10.1016/j.jbi.2024.104752

Nguyen M.H., Sedoc, J., & Taylor C. O. (2024). Usability, engagement, and report usefulness of chatbot-based family health history data collection: Mixed-methods analysis. *Journal of Medical Internet Research*. doi:10.2196/55164. http://dx.doi.org/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:

Nguyen M.H., Soley N., Rattsev I., Jelin A., Taylor C.O. (November 2024). "Strolr: An LLM-enabled Chatbot to Support Pregnant Women's Quick and Easy Information Seeking from Trustworthy Sources." Systems demonstration. *AMIA National Symposium 2024*, San Francisco, CA.

Nguyen M.H., James C.A., Applegate C., Murray B., Tichnell C., Pendleton C., Yanek L.R., Taylor C.O. (November 2024). "Automated Genetic Counseling Efficiency Measure Extraction with Rules-based Natural Language Processing Methods." *AMIA National Symposium 2024*, San Francisco, CA.

Nguyen M.H. (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.

Nguyen M.H.*, Song S.*, Taylor C.O. (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.

Invited talks:

Nguyen M.H., James C.A., Taylor C.O. (April 2025). "Rule-based Natural Language Processing Methods to Extract Genetic Counseling Efficiency Measures." *Johns Hopkins Cardiogenetics Case Conference*, April 9, 2025.

Poster presentations:

Applegate C., **Nguyen M.H.**, Murray B., Tichnell C., Gordon C., Yanek L.R., Taylor C.O., James C.A. (November 2024). "Comparing telehealth and in-person genetic counseling visit times across specialties." *ASHG 2024*, Denver, CO.

Nguyen M.H., Sedoc J., Taylor C.O. (March 2023). "Randomized Intervention Study of Form-based and Chatbot-based Methods for Family History Data Collection." *AMIA Informatics Summit 2023*, Seattle, WA.

Yang K.K., **Nguyen M.H.**, Jelin A., Rouhizadeh M., Sobreira N., Taylor C.O. (March 2023). "Detecting Phenotypes Among Patients Suspected of Rare Mendelian Disorders." *AMIA Informatics Summit 2023*, Seattle, WA.

Nguyen M.H., Sedoc J., Taylor C.O. (November 2022). "Piloting Family Health History Chatbot with Crowd-Sourced Data Collection." *AMIA National Symposium 2022*, Washington, D.C.

Nguyen M.H., Sedoc J., Taylor C.O. (April 2022). "Design and Implementation of Web-based Methods for Family Health History Collection." *ACTS Translational Science 2022*, Chicago, IL.

Nguyen M.H., Weinberg S. (May 2018). "Modeling Heart Rate Variability with ECG-based Patient Data." *Honors Summer Undergraduate Research Program*, Richmond, VA.

Nguyen M.H., Boyes M. (April 2017). "Piano Practice as Pediatric Multiple Sclerosis Therapy." *9th VCU Poster Symposium for Undergraduate Research and Creativity*, Richmond, VA.

*designates equal contribution

HONORS, AWARDS & FUNDING

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, T32
2019-2020	Tau Beta Pi Scholarship
2017-2019	Western Union Global Scholarship Award
2017	VCU Launch Award
2016-2020	VCU Provost Scholar

TEACHING EXPERIENCE

Teaching Assistant	Biomedical Data Design (Fall 2022-Spring 2023)
Teaching Assistant	Honors Rhetoric (Fall 2017-Spring 2020)

MENTORSHIP

2024-present	Makhail Bentil [position: Johns Hopkins Computer Science PhD student]
2022-present	Nidhi Soley [position: Johns Hopkins Biomedical Engineering PhD student]
2022-2023	Lester Liu [position: Johns Hopkins Biomedical Engineering Master's student, now: Johns Hopkins Biomedical Engineering PhD student]
2022-2023	Ziyang Xu [position: Johns Hopkins Biomedical Engineering Master's student, now: Johns Hopkins Biomedical Engineering PhD student]
2022-2023	Todd Hartman [position: Johns Hopkins Biomedical Engineering undergraduate, now: Machine Learning Engineer at Capital One]
2021-2023	Cindy Zhang [position: Johns Hopkins undergraduate, now: incoming UW Biomedical and Health Informatics PhD student]

RESEARCH SUPPORT

Completed

2021-2022	Pre-doctoral fellowship - TL1 TR003100. NIH/NCATS
2020-2021	Pre-doctoral fellowship - CMT32. NIH/NIGMS

OTHER EXPERIENCE

2025-Present	AMIA National Symposium Reviewer
2024-Present	Letters to a Pre-Scientist STEM Professional Outreach Pen Pal

2024-Present	Johns Hopkins Medicine Basic Sciences Institute – Summer Internship Program Triage Reviewer
2023-Present	JHU Student Services Excellence Initiative Student Advisory Committee Member
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