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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: December 2025

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., 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](https://doi.org/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	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