Tianhe (Rory) Wu

B.S. in Applied Mathematics | B.A. in Biology
GPA: 3.99/4.00
Emory University
Atlanta, GA

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EDUCATION

•Emory University *Expected: May 2025*

B.S. in Applied Mathematics | B.A. in Biology Dean's List, GPA: 3.9/4.0

– **Relevant Courses:** Mathematical Stats, Nonlinear Optimization, PDE, Numerical Analysis, Linear Algebra, Multivariable Calculus, Advance in Computer Science, Cancer Biology, Genetic, Organic Chemistry

RELEVANT EXPERIENCE

•Winship Cancer Institute, Emory Medical School *Jun 2022 – Present*

Research Assistant; Supervised by Dr.Hui Mao Atlanta, GA

– Analyzed Hemodynamic Heterogeneity of Gliomas based on non-invasive MRI
– Synthesized and Coated Magnetic Iron Oxide Nanoparticles for MRI Contrast Enhancement
– Independently developed proprietary Confocal Signal Identification software, Python-based
– Applied various deep learning and machine learning models to clinical studies, ensuring accurate and efficient data analysis

•Department of Biomedical Infomatic, Emory Medical School *Jan 2024 - Mar 2024*

Student Researcher; Supervised by Dr.Hyeok Kwon Atlanta, GA

– Developing Foundational Generative AI Model for Movement Disorder with GAN, Diffusion-based Architecture

•Biology Department of Oxford College, Emory University *Aug 2022 - May 2023*

Student Researcher; Supervised by Dr.Taliaferro-Smith Oxford, GA

– Investigated the effect of Tap63a upregulation through c-Jun in Triple Negative Breast Cancer

•Tsinghua University & Bluepha *Nov 2018 – Dec 2019*

Captain of IGEM Team BESA-China Beijing, China

– Co-led a team of fifteen to design NEZHA, a noncanonical amino acid controlled, extraordinarily sensitive, modularized, heavy metal sensor, and absorber 🔗

PUBLICATION & CONFERENCE

– **Accepted at Quantitative Imaging in Medicine and Surgery:** Tang, L., **Wu, T.**, etc, Hemodynamic Property Incorporated Brain Tumor Segmentation by Deep Learning and Density-Based Analysis of Dynamic Susceptibility Contrast-Enhanced MRI.
– Yao, L., & **Wu, T.**. (2024). Application and Regulatory Challenges of Artificial Intelligence/Machine Learning in Clinical Trials from the Perspectives of FDA Discussion, EMA Reflection Paper, and the Stakeholders' Comments. *China Food & Drug Admission Magazine.* 🔗
– Tang, L., **Wu, T.**, Mao, H.. Hemodynamic Property Incorporated Brain Tumor Segmentation by Deep Learning and Density-Based Analysis of Dynamic Susceptibility Contrast-Enhanced MRI; Poster presented at *World Molecular Imaging Congress 2023*; 2023 Sep 6; Prague, Czech Republic.
– **Wu, T.**, Liu, C., Thamizhchelvan, A. M., Fleischer, C., Peng, X., Liu, G., & Mao, H. (2023). Label-free chemically and molecularly selective magnetic resonance imaging. *Chemical & Biomedical Imaging.* 🔗
– Martin E, Valavala N, **Wu T(Rory)**, Asante R, Taliaferro-Smith L. (All authors contributed equally) The Impact of c-Jun Initiated Tap63 Upregulation on TNBC Metastasis; Poster presented at *2023 Oxford College Research Scholar Symposium*; 2023 Apr 14; Oxford, GA.

Leadership Experience

•Emory International Pre-health Club *May 2022 - Present*
Incoming Co-President of 2024 | Chair of Academic Development 2023 | Member of Oxford Committee 2022

- Spearheading the coordination and integration of 7 distinct departments and committees
- Leading a dynamic team of 30+ members distributed across two campuses
- Curated and refined over 50 weekly newsletters, engaging an audience of 287 subscribers
- Conceptualized and executed 5 professional career panels, featuring 20 industry experts, facilitating invaluable networking and learning opportunities for members

•International Student Advocacy Board *August 2021 – Sep 2022*
Representative

- Gathered opinions from the international student body and provided feedback to the International Students' Office
- Coordinated summer housing availability for incoming international students
- Coordinated faculty-student panel

Achievement

College: Dean's List, Phi Eta Sigma
High School: Principle's Award, Valedictorian, IGEM Gold Medal, USABO Silver Medal, Drama Club

Technical Skills

Languages: Native in Mandarin, Proficient in English, Beginner in Latin
Developer Tools: Python, GO, Bash, Linux, Java, MATLAB, R, FSL and Microsoft Suite