

Peneeta Wojcik

pawojcik@andrew.cmu.edu | 757.707.8388 | www.linkedin.com/in/peneeta

EDUCATION

Carnegie Mellon University

Master of Science in Automated Science

Pittsburgh, PA

May 2026

University of Virginia

Bachelor of Science in Biomedical Engineering

Minor in Computer Science, Minor in Data Science

Relevant Coursework: Program and Data Representation, Machine Learning, Biomedical Data Science

Charlottesville, VA

May 2024

SKILLS

Programming Languages: Python, JavaScript, MATLAB, R, HTML/CSS, C++, Bash

Lab Protocols: mammalian and bacterial cell culture, SDS-PAGE, MTT assay, gel electrophoresis

RESEARCH EXPERIENCE

University of Virginia

Capstone Thesis

Charlottesville, VA

September 2023 – May 2024

- Partnered with three undergraduate and two graduate students in the Sheffield Lab to develop a search tool for genomic region sets with machine learning models trained on ATAC-seq data
- Implemented a custom transformer model with PyTorch to convert natural language search queries to relevant genomic regions in BED file format, completed preliminary training with 100 BED files

DAAD RISE Germany

Computational Chemistry Intern

Erlangen, Germany

June 2023 – August 2023

- Collaborated with graduate student in the Gmeiner Lab at FAU Erlangen, leveraged molecular dynamics software such as GROMACS, AMBER, and VMD to simulate five GPCR receptors and associated ligand binding
- Created a 30-page guide on setting up molecular dynamics simulations for future interns and Masters students

Virginia iGEM

Student Researcher and Wiki Lead

Charlottesville, VA

May 2022 – January 2023

- Devised a method to detect early atherosclerosis with a lateral flow test strip using an engineered strand of *E. coli* to produce biomarker-specific antibodies. Student-led project with a team of 11 students
- Constructed and implemented team website using Bootstrap, Figma, and Flask, led a small team of students to design the site
- Presented stage lecture to four iGEM teams at the University of Maryland midsummer iGEM meet-up
- Synthesized two out of three antibodies and induced protein expression in SHuffle bacteria

Christopher Newport University

Chemistry Student Researcher

Newport News, VA

May 2021 – July 2021

- Characterized and synthesized Bio-Char, a form of activated charcoal made from organic matter, with a team of four students
- Provided organic materials for Bio-Char synthesis, performed FTIR and absorption analysis, presented results at Sigma XI Symposium poster session

LEADERSHIP

Rodman Leadership Council

Research Chair, Social Chair

Charlottesville, VA

January 2022 – May 2023

- Created research symposium for 10 undergraduate teams at UVA to showcase research and practice presenting
- Coordinated with six professors for judging, set up and ushered event, presented opening and closing remarks
- Arranged 4 large social events per semester for Rodman students at UVA to increase community bonding and networking

HONORS AND AWARDS

- LMI Data Health Equity Challenge Winner (2024)
- Rodman Scholar in UVA School of Engineering (2021)