Meghna Nair

EDUCATION

Purdue University, West Lafayette, IN — Expected Graduation: Dec 2024
Bachelor of Science in Biomedical Engineering
GPA: 3.98/4.0

WORK EXPERIENCE

Trydan Tech — June 2024 – August 2024
Intern — Coimbatore, Tamil Nadu

- Conducted theoretical calculations to optimize the design of high-power battery cells
- Collaborated with cross-functional teams to transition from theoretical designs to hands-on production
- Analyzed and researched new materials for improved cell outputs
- Assisted with electrode slurry making, balancing various properties to enhance battery performance

Apple — May 2023 - August 2023
Intern, Mac Hardware Validation — Austin, Texas

- Translated a pulse wave propagation simulation of the human arterial tree from Matlab into Python
- Created a Python program to conduct statistical analysis on the Heart Rate Variability data collected from the Apple Watch to improve efficiency of this feature
- Collaborated with cross-functional teams to develop hardware validation test plans and timelines for the Mac Studio
- Led team meetings to discuss planning and execution, ensuring adherence to project scopes

Apple — January 2022 - August 2022
Intern, Human Engineering Validation Team — Cupertino, California

- Created an interactive Python interface to plot and store study data for easier accessibility
- Communicated with cross functional teams and troubleshot unexpected study device issues
- Executed human user studies to provide reliable data for the analysis of watch sensors
- Led a weekly sync with cross functional team members to provide study related updates
- Established and executed logistics for supporting user studies of a newly acquired feature

Undergraduate Research, Purdue University — August 2023 - Present
Undergraduate Research Assistant, Pienaar Lab — West Lafayette, Indiana

- Developing a computational system to model pharmacokinetic target attainment of drugs used to tuberculosis using Matlab
- Utilizing data to predict what percentage of the population would be able to achieve high enough concentrations to effectively kill different mycobacteria
- Identifying drug combinations and doses that provide the optimal target attainment
- Researching new drugs that show faster time to culture conversion compared to old generations

SKILLS

- Python
- Matlab
- C/C++
- Java
- Arduino
- Minitab