

Peter C. Hwang

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EDUCATION

University of Maryland

BS in Computer Science, Mechanical Engineering, Minor in Statistics | GPA: 3.61/4.0

College Park, MD

Graduation: December 2023

WORKING EXPERIENCE

UMD Computational Research Lab

Software Engineering Intern

College Park, MD

September 2023 – Present

- Automated simulation parameter entries, test analyses, and data exportations using Python, and Bash queries in a Linux environment to streamline manual components while reduce processing times by 56%
- Analyzing parameter sensitivities of exothermic compositions to developing state of equation models for the Department of Defense with pharmaceutical mythologies using Python, R, MySQL, and MongoDB

Textron Systems

Software Engineering Intern

Sterling, VA

May 2022 – August 2022

- Streamlined initialization of NestJS webpage application using configuration files to identify available stream endpoints
- Integrated AngularJS components to webpages using TypeScript and HTML to monitor query requests and live metrics of local machines
- Utilized MongoDB and Docker to store stream query submissions and reduced processing time for query results
- Implemented AWS Lambda and RESTful API using Flask to dynamically update MongoDB table with appropriate query status and results from external metadata streams

Textron Systems

Systems Engineering Intern

Hunt Valley, MD

May 2021 – August 2021

- Refactored and integrated data analysis application with calibration processes using C# to reduce duration of system testing
- Parsed through 500TB of data logs per system calibration and reported analysis results to engineers during customer compliance troubleshooting
- Consulted with customers to conduct requirement analyses and derived system architecture models and acceptance test procedures

UMD Quantitative Control and Optimization Lab

Research Assistant

College Park, MD

January 2021 – May 2021

- Developed responsive and dynamic webpage using HTML, CSS, JavaScript, and Bootstrap to enable easy access to laboratory publication library, communication portals and abstract of current research endeavors
- Analyzed parameter sensitivities of multi-dimensional physics models using Python scripts to identified optimal underlying model parameters

PROJECTS

Capital Wise | *HTML, CSS, Angular, PHP, SQL*

- Created a webpage that implements non-linear regression models to calculate projected capital gains from investments

Currency Flow | *Fixer API, MongoDB, HTML, CSS, JavaScript*

- Created an ExpressJS webpage application where users can conveniently conduct international currency conversions using Fixer API while monitoring user demographics through dynamically updating MongoDB tables

Memory Mosaic (In Progress) | *PostgreSQL, Cloudinary, JavaScript*

- Developed a photo archiving application in which users can store, retrieve, update, and delete memories via a cloud-based database

SKILLS & CERTIFICATIONS

PROGRAMMING SKILLS

Java, Python, C++, SQL, Kotlin, XML, JavaScript, HTML, CSS

TECHNOLOGIES

Postman, Docker, Git, MySQL, PostgreSQL, Cloudinary, MongoDB, Bootstrap, Express, React

CERTIFICATIONS

AWS Certified Cloud Practitioner (In Progress), Microsoft Certified Azure Fundamentals (In Progress)

LEADERSHIP EXPERIENCE

Society of Asian Scientists and Engineers

Student Representative

College Park, MD

August 2022 – Present

- Coordinated body-wide events to expose members to various internship, employment, and networking opportunities
- Organized efforts to expand membership and awareness of organization amongst fellow students

UMD Computer Science Department

Teaching Assistant

College Park, MD

January 2021 – May 2022

- Facilitated students' fundamental knowledge of object-oriented programming and data structures in Java
- Enhanced students' problem-solving skills with heuristic techniques during office hours and discussions