

Bill Wang

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Education

Johns Hopkins University

Class of 2027

Double BS Computer Science, Mechanical Engineering

GPA: 3.77/4.0 (Dean's List)

Experience

Undergraduate Researcher

Johns Hopkins University – The Barman Laboratory

Jun 2025 - Present

- Implemented **AI** powered autonomous drone swarm missions and simulations using **Python**, **Ardupilot**, and **Webots** to test multi-drone coordination strategies
- Produced drone components and modules with **Fusion360** and **Blender**, leveraging **3D printing** techniques for rapid prototyping and creating custom **PCBs** to enable specialized drone functions

Back End Web Development Intern

Horizon World Salon

Jun 2025 - Sep 2025

- Built an automated pipeline with **Node.js** and **Canva API** to convert raw data into ready-to-use promotional materials, reducing manual processing time by 60%
- Optimized core infrastructure with **Express.js**, **AWS**, and **PostgreSQL**, boosting system scalability and reliability

Software Engineer Intern

Eth Tech

Jun 2024 - Dec 2024

- Developed a **Python** backend for an online fishing game using **Django** and **RESTful APIs**, increased user session length by 43% with real-time responses
- Managed game data with **MyBatis** and **MySQL**, ensuring efficient handling of users, fish species, and catch records
- Streamlined deployment using **Docker** and **Kubernetes**, enabling 25% faster releases, and enhanced security and scalability with **Spring Security** and **AWS EC2**, cutting security risks by 75% and operational costs by 34%

Undergraduate Researcher

Johns Hopkins University – Terradynamics Lab

Jan 2024 - Dec 2024

- Formulated and conducted data collection experiments for biomimetic robots using **Python**, utilising **Matplotlib** and **Seaborn** for data visualization to visualize trends and optimize robot performance
- Extracted 3D tracking data from a multicam high-speed video setup and processing leveraging machine learning and MATLAB-based tools to achieve accurate performance scoring and creating an automated video processing pipeline using **Matlab**, **ffmpeg**, **bash scripting**, and other utilities, reducing processing time by 50%

Projects

Car Sharing Website

[Github Link](#)

- Developed a car sharing website allowing customers to upload rideshare routes and join existing routes.
- Built website frontend using **JavaScript** and **PHP**, with login functionality and embedded **Google Maps API** for easy route creation, with user route data stored in a database managed with **MySQL**, **AJAX**, **JSON**
- Greatly enhanced ride sharing convenience, allowing anyone to post commute or one-time trips with info such as prices, distance, pickup/drop off times, available seats, etc.

Task Manager

[Github Link](#)

- Designed a cross-platform task management app with **React Native** and **Expo**
- Built core features for adding, removing, and marking tasks as complete, displaying task status in a clean user interface

Expense Tracker

[Github Link](#)

- Created an **Android** app using **Kotlin** and **Jetpack Compose**, enabling easier personal finance monitoring
- Implemented a dynamic, scrollable list of expenses, with filtering by category for easy navigation and expense tracking

Skills

Programming	MATLAB, Python, C++, C, C#, Java, Kotlin, R, x86 Assembly
Web	CSS, HTML, JavaScript, React, Node.js
Full Stack	Git, Linux, Android Studio, AWS (EC2, SQS), Docker, Postman, MySQL, PostgreSQL, MongoDB, Canva API, OpenCV
Machine Learning	TensorFlow, NumPy, PyTorch, Scikit-learn
Engineering	Inventor, Solidworks, Fusion360, Creo, Arduino, Raspberry Pi, EasyEDA
Robotics	Unity, Blender, Ardupilot, Robot Operating System, Webots