Manyung Emma Hon

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EDUCATION

Carnegie Mellon University, School of Computer Science, Robotics Institute **Pittsburgh, PA**
Master of Science | Robotic Systems Development   2024 – 2026
Courses: Planning and Decision-making in Robotics; Manipulation, Estimation, and Control; Robot Mobility on Air, Land, and Sea; Systems Engineering and Management for Robotics

The George Washington University, School of Engineering and Applied Science **Washington, D.C.**
Bachelor of Arts | General Engineering, Mathematics   May 2020
Award: 2019 Deloitte x Undergraduate Consulting Group Case Study Competition (1st Place)

PROJECT

Master Capstone Project: Multi-Robot Material Sortation   *On-going*
Developing software to optimize multi-robot coordination and task allocation, based on Professor Jiaoyang Li's multi-agent pathfinding research, to improve material sorting speed and efficiency on conveyor belt.

Planning and Decision-making in Robotics   *On-going*
Designing and implementing C++ algorithm to catch moving target within 2D grid world with minimum cost.

EXPERIENCE

Envirobe, Inc. | Biotech Startup   **Brooklyn, New York**
Founder & Chief Operating Officer   *May 2019 – Present*
We engineer plastic-degrading microbe and bioreactor for industrial application.
- Developed technical drawings and CAD models to build product from concept to minimal viable product with mechanical engineers, microbiologists, and other stakeholders.
- Performed market research and competitive analysis to identify key trends, opportunities, and potential gaps in the recycling industry, enabling informed decisions on product development.
- Interviewed 100+ industry experts to identify potential customers and understand the challenges of plastic recycling to provide critical insights that informed product strategy.
- Won over $200K at startup competitions by delivering a compelling business plan to judges and investors.

Key Achievements:
- *2021 MIT Climate & Energy Prize (3rd Place and Audience Choice Award)*
- *2020 Columbia Venture Competition (1st Place in the Hard Tech Track)*
- *2020 NYU 300k Entrepreneurs Challenge (1st Place in the Technology Venture Track and Audience Choice)*
- *2019 GWU New Venture Competition (1st Place in the Technology Venture Track)*

Propel Inc. | Fintech Startup   **Brooklyn, New York**
Data Analyst   *Jan 2022 – April 2023*
We build software for low-income Americans who are often overlooked by traditional tech innovation.
- Engineered and implemented data tools to make data-driven resource allocations, recovering $20K per month in fraud for users and improving customer service.
- Developed processes with technical documentation and instructions to improve cross-functional team efficiency by ~60%, resulting in higher productivity and quality product releases.
- Conducted A/B testing and other statistical experiments to optimize content deliveries, resulting in a ~10% increase in benefits hub content clicks.

SKILLS

Technical Skills: C++, Java, Python, MATLAB, JavaScript, SQL, CSS, HTML, React, PHP
Software: Solid Edge, Solid Work, AutoCAD, Snowflake, MySQL, Metabase, Amplitude, Vensim, Figma
Languages: Mandarin (Native), Cantonese (Native), English (Advanced)