Yidan (Adelin) Ma

mayidan@uw.edu • (1) 206-618-6807 • linkedin.com/in/adelinmayidan • yd025.github.io

EDUCATION

University of Washington, Paul G. Allen School of Computer Science & Engineering Seattle, WA
Double Degree B.S. in **Computer Engineering** and B.A. in **Mathematics** | GPA: 3.84 / 4.00 Exp. June 2027
Relevant Coursework: Data Structures and Parallelism, Discrete Optimization, Systems Programming, Computer Security

Massachusetts Institute of Technology, Institute for Data, Systems, and Society Synchronous Online
Certificate in Data Science and Machine Learning: Making Data-Driven Decisions Sep 2025 - Jan 2025
Leveraging Deep Learning and Generative AI to deploy solutions, driving improvements in predictive analytics for businesses.

SKILLS

Technical: Java, Python, MATLAB, SQL, HTML, CSS, JavaScript, UI/UX, ReactJS, C, Assembly, Git, Figma, Excel.
Libraries & Frameworks: Pandas, Seaborn, NumPy, Matplotlib, Scikit-learn, SciPy, XGBoost, Plotly, Mediapipe.
Laboratory: CAD (OnShape), 3D printing, soldering, data science, data management, data visualization.
Language: English, Mandarin (Fluent); Korean (Intermediate); French, Japanese (Beginner).

EXPERIENCES

Analog Electronic Researcher Seattle, WA
PIONEER Experiment, Experimental Nuclear Physics and Astrophysics (CENPA) Sep 2025 – Present
- Analyzed FAST3 output inconsistencies by modeling circuit topology as a graph, revealing emergent AND/OR-like interactions between resistive elements that distorted channel gain mapping.

Meeting Reservation Specialist Seattle, WA
Husky Union Building Sep 2024 – Present
- Developed a dual-mode email automation script using Excel VBA and HTML/CSS to standardize event compliance communication, resulting in a 6x increase in workflow efficiency and the elimination of manual data entry errors.
- Drafting detailed quotes and managed event logistics for 200+ events in the HUB by coordinating client needs, AV requirements, and service restrictions, ensuring smooth planning and high client satisfaction.

Machine Learning Data Science Lead & Web Developer Seattle, WA
The Boring Club at UW Sep 2024 – Present
- Leading the club to develop a real-time machine learning facial recognition attendance checker using live camera data, applying data engineering and model training techniques to enable accurate and efficient image classification.
- Built and maintained the organization's website, growing traffic to 10,000 visitors and expanding online engagement.

TechCare Intern Singapore
Lions Befrienders Service Association Feb 2024 - Aug 2024
- Engaged and communicated with various technological companies to develop and implement projects for the elderly, including custom tablets, automated AI chatbots and non-invasive healthcare monitoring devices.
- Conducted 30+ outreach programs at public roadshows to introduce products to seniors, corporate partners and the public, speaking to large crowds reaching up to 1000 people in a day.

Magnetorquers Lead in Attitude Determination and Control Systems Seattle, WA
Husky Satellite Lab Oct 2024 – Jan 2025
- Contributed to the design and integration of a flat-sat nanosatellite system for HS-2 under the University Nanosatellite Program in the ADCS subsystem, advancing the Husky Satellite Lab's bid for future orbital deployment.
- Developed control algorithms using quaternion mathematics to fuse IMU and magnetometer data, enabling precise magnetorquer coil actuation for satellite attitude control.

PROJECTS

Digital Fridge
DubHacks 2025 AWS Track | AWS Bedrock, AWS S3, Firebase, React, Flask, Python, JavaScript 2025
- Built a full-stack web app that tracks fridge inventory and monitors expiration dates.
- Leveraged AWS Bedrock to generate AI-driven suggestions and grocery lists, improving planning efficiency by 60%.
- Integrated barcode scanning and food database APIs to automate metadata extraction, cutting input time by 75%.

Ordito AI File Organizer
8VC x DubHacks Next Hack Night | Llama AI, Python, Tkinter 2025
- Developed a full-stack offline desktop app that organizes files, reducing file sorting time to a few seconds.
- Integrated LLaMA AI to analyze file content locally, achieving 90%+ accuracy in folder suggestions without internet.
- Designed a intuitive Tkinter GUI enabling users to drag-and-drop files and manually select destination folder.

Spatial and Machine Learning Analysis of Motor Vehicle Theft in King County, Washington
Final Project for Intermediate Data Programming | Python, CatBoost, Plotly 2025
- Used Pandas, GeoPandas to analyze >50,000 crime data, identifying 5 major theft hotspots and seasonal trends.
- Adopted a three-stage ML model to identify motor vehicle theft from meta data, achieving balanced f1 and recall.