

Kavya Karthik

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EDUCATION

UNIVERSITY OF WASHINGTON, SEATTLE
Bachelor of Science in Computer Science

Dean's List 2025-26, 3.77 GPA
Aug 2025 - June 2029

RELEVANT COURSEWORK

Data Structures & Algorithms, Human-Computer Interaction, Linux, Assembly & Memory Management, Statics, Mechanics of Materials, Kinematics & Dynamics, Linear Algebra, Discrete Math, Differential Equations, CAD

Certifications: *SOLIDWORKS Design Associate (CSWA)*

SKILLS

Engineering Tools: Arduino, Raspberry Pi, CAD (Solidworks, Blender)

Developer Tools: Git, Linux, GitHub, VSCode, Jupyter Notebook, Android Studio, Firebase

Programming Languages: Java, C, Assembly, Python (NumPy, Pandas, Matplotlib, PyTorch), HTML/CSS, Kotlin

EXPERIENCE & PROJECTS

HUMAN POWERED SUBMARINE

Solidworks, Hands-on Engineering Experience, Mentorship

Seattle, WA

Jan 2026 - PRESENT

- Supported hull subteam with fabrication, documentation, and engineering tasks while learning design processes.
- Completed composite and machine shop safety training; authorized for shop operations.
- Developed CAD proficiency; preparing for CSWP certification.

RESEARCH & DEVELOPMENT ASSISTANT

Sensors, Energy, and Automation Laboratory

Seattle, WA

March 2026 - July 2026

- Developed a bug reporting platform used by 100+ researchers, reducing manual processes & improving lab productivity.
- Extended Google Sheets workflows to support embedded image-based bug reports, improving reproducibility for debugging. Then, automated routing of bug reports from Google Sheets to Slack channels based on issue category.
- Designed scalable workflow automation that standardized bug reports across laboratory software, reducing ambiguity and accelerating issue resolution.
- Reviewed plasma-related engineering research proposals and technical literature.

ATHENA PRODUCTIVITY

Kotlin/Java, Data Structures, Firebase

athenaproductivity.github.io

Dec 2024 - June 2025

- Led a five-person team to design and develop a full-stack Android productivity application.
- Implemented Firebase Authentication and Cloud Firestore to support secure user authentication and cloud storage.
- Designed messaging, task management, notes and calendar features with real-time synchronization that were tested with 10+ users and iteratively improved upon using feedback.
- Delivered a production-ready tool under tight deadlines and presented to 25+ developers.

TEACHING ASSISTANT

Python, CS Fundamentals, ML concepts, Arduino, Raspberry Pi

Bellevue, WA

Sep 2024 - June 2025

- Expanded curriculum by introducing hands-on work in python, robotics, circuits, and other applied computing concepts (Arduino, Raspberry Pi) including introductory ML frameworks to 60+ students.
- Supported students in mastering concepts through personalized instruction and project-based learning.

MACHINE LEARNING RESEARCH PROJECT *with MIT's Autonomous Cognitive Assistant Course*

Python, Jupyter Notebook, GitHub, HuggingFace, ML models

Remote

July 2024 - Aug 2024

- Developed machine learning models in Python/Jupyter notebooks focused on accent bias mitigation.
- Evaluated model performance and explored ethical considerations in AI system design.
- Presented results in a virtual showcase to 400+ attendees.