Javon Hickmon

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EDUCATION

University of Washington - BS Computer Science *2021 - 2024*

- Cumulative GPA: 3.81
- Admitted to the Allen School Combined BS/MS Program.
- MS in Computer Science & Engineering expected Spring 2025
- Direct Admission: Paul G. Allen School of Computer Science

Olympic College - AA *2019 - 2021*

RESEARCH INTERESTS

I am broadly interested in Computer Vision; however, my specific interests include Multimodal Machine Learning and Fair Machine Learning. My goal is to utilize multiple modalities in order to create systems that can truly understand the semantics of our world and can effectively use this semantic knowledge in real-world interaction and prediction.

RESEARCH EXPERIENCE

Undergraduate Research Assistant – Peleg Lab *June 2023 - Present*

- Proposed the implementation of state-of-the-art Computer Vision methods to improve the accuracy and temporal coherence for task of object segmentation for honeybees.
- Led the research, implementation, and analysis of the proposed segmentation methods.
- Updated the state-of-the-art object segmentation model XMem to support MPS for inference on Apple devices, fixed bugs in the GUI, added support for video exporting, and updated the GUI to utilize the newer PyQT6.
- Mentored by Dr. Orit Peleg.

Undergraduate Research Assistant – RAIVN Lab *Dec. 2022 - Present*

- Worked to utilize chain-of-thought prompting as a means of leveraging the knowledge contained within Language Models to improve the image classification task. Specifically working to improve image classification for Multi-Modal Models
- Isolated common errors made by CuPL (Customized Prompts via Language models) for the task of zero-shot image classification. Improved prompt generation techniques to result in higher accuracies on commonly mistaken images while evaluating on ImageNet.
- Mentored by Dr. Ali Farhadi and Sarah Pratt.

TEACHING & MENTORING EXPERIENCE

Lead Teaching Assistant – CSE 190W – University of Washington *Sept. 2023 - Present*

- Assisted in the development and improvement of course materials, assignments, and assessments in collaboration with the course instructor. Wrote problems for the course midterm and helped facilitate office hours.
- Managed and organized grading responsibilities for a team of teaching assistants, ensuring fair and consistent evaluation of student work.
- Responded promptly to student inquiries and concerns, providing academic support and helping students navigate course requirements.

- Demonstrated a deep understanding of Java, enabling me to effectively support both students and teaching assistants in their learning and teaching efforts.

Teaching Assistant – CSE 122, 190X, 190YB – University of Washington *Mar. 2022 - Present*

- Assisted in the teaching, logistics, and curriculum development of the workshops for these courses. These workshops support first-generation, low-income, and underrepresented students in Computer Science at the University of Washington.
- Taught introductory Java programming concepts and hosted weekly 1-on-1 check-ins with five students per quarter.
- Received positive feedback from students and teaching assistants for my dedication to maintaining a supportive and enriching learning environment.

COM^2 Big/Little Mentorship Program – University of Washington *Oct. 2023 - Present*

- Mentored a cohort of three first-year Computer Science students within the Paul G. Allen School of Computer Science and Engineering.
- Provided academic and career guidance, fostering a sense of community and belonging for mentees.
- Offered career advice, sharing personal insights and experiences to inspire and motivate mentees. Facilitated personal and professional growth in mentees, assisted their progress and development.

Allen School Research Roundtable Panelist – University of Washington *Apr. 2023*

- Spoke to admitted Computer Science students about my experience performing research at the undergraduate level.

AP CSA Presenter – Code.org *Mar. 2022*

- Presented Computer Science Principles in a fun and engaging manner for the Code.org AP Computer Science A curriculum.

Visiting Speaker – Bluffton Highschool *Dec. 2022*

- Spoke to high school students about my journey studying Computer Science and provided guidance for their studies.

PROFESSIONAL EXPERIENCE

SDE Intern - Amazon *June 2022 - Sept. 2022*

- Built technologies within a large, distributed computing environment that improved the experience of millions of Amazon sellers worldwide through a product called EasyShip.
- Designed and developed features for a full-stack mobile application with a heavy focus on RESTful APIs, high-quality code architecture, and test automation. These contributions significantly improved the Amazon seller experience by allowing EasyShip sellers to send and receive bulk orders.

CONFERENCES ATTENDED

2023 SACNAS NDiSTEM Conference (Poster Presentation) *2023*

2023 UCLA National McNair Conference (Oral Presentation) *2023*

Paul G. Allen School Undergraduate and Master's Research Showcase (Poster) *2023*

Gabriel E. Gallardo Research, Student Leadership & Advocacy Symposium *2023*

CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference *2022*

HONORS

Google CS Research Mentorship Program Scholar *2023 – Present*

Ronald E. McNair Post-Baccalaureate Achievement Scholar *2023 - Present*

Leo Maddox Foundation Scholarship *2023 - Present*

Washington State Opportunity Scholar *2021 - Present*

Office of Minority Affairs and Diversity Merit Scholar *2022 - Present*

Bava Scholarship *2021 - Present*

Dean's List *2021 - Present*

President's List *2021 – Present*

TECHNICAL SKILLS

Proficient In: Python, PyTorch, Java, JavaScript, OpenCV, React.js, HTML/CSS, OpenGL, Figma

LEADERSHIP EXPERIENCE

Education Director - COM² (Computing Community) *May 2023 – Present*

- Pioneered the creation of this role because I saw a need for academic and skill building events within the Allen School.
- Spearheaded the development of the Intro to React Workshop, and Git Version Control Workshop, some of the first skill-building workshops the COM² has hosted since 2013.
- COM² is the largest fully student-led organization within UW CSE. With the mission to create a supportive atmosphere for all within UW CSE, we achieve this by providing professional development resources, hosting department-wide socials, and coordinating mentorship opportunities for our members.

Social Events Coordinator - COM² (Computing Community) *May 2022 – May 2023*

- Led all social event planning and execution for COM², the largest CSE student group at the University of Washington.
- Planned and led a team of 20 officers to create over 30 social events. More than 500 CSE undergraduates, graduate students, and professors attended our largest event.
- Direct feedback let us know these events have played a key role improving the undergraduate experience by introducing students to undergraduate research, connecting them to internship opportunities, and facilitating friendships.

Associate Officer – Association for Computing Machinery (now COM²) *May 2021 - May 2022*

- Planned and executed seven social events throughout the year. Our largest event had 350 attendees. Communicated with 20 team members and managed tasks efficiently.
- Raised funds for organizations, such as Code.org, Black Girls CODE, the U District Food Bank. Was able to raise more than $1200 on average for our fundraiser efforts.

PROJECTS

Digital Tether *Sept. 2022 – Sept. 2023*

- Digital Tether is a project led by students and funded by CoMotion Labs with the goal of improving Digital Literacy for marginalized communities worldwide.
- Led the software development team to write the full-stack codebase for our primary product, a Google Chrome extension.
- The extension is designed to help improve digital literacy by teaching users how to identify signs of harmful websites, with the expectation that users will learn best practices and eventually not need the extension as they gain digital literacy.

- Technologies Used: JS, HTML/CSS, Wikipedia API, Google Custom Search JSON API

tinyGAN *Jan. 2023*

- A Generative Adversarial Network built from scratch without the use of Deep Learning libraries. Written to test my knowledge of the mathematics behind GANs.
- Technologies Used: Python, NumPy, MatPlotLib

Luna *Dec. 2021 - Jan. 2022*

- A practical, intuitive 3D graphics engine constructed only using 2D components from the Java Abstract Window Toolkit. This project was written primarily for education purposes to test my knowledge of linear algebra, geometry, and calculus.
- Wrote the renderer and integrated it with 3D scanning software by allowing the engine to load .obj files, one of the most widely used 3D file formats.
- Technologies Used: Java, Java AWT, Java Swing

Delivr *July 2021 - Aug. 2021*

- A mapping web app that automates complex route planning while accounting for obstructions. Catered towards equipment rental companies.
- Technologies Used: React JS, MapQuest API

MindHabit *Oct. 2021*

- A website made to enrich study habits and improve students' mental health by allowing users to manage tasks, listen to music, and read positive affirmations all in one place.
- Technologies Used: JavaScript, HTML/CSS, SoundCloud API, GfyCat API

Weather *Dec. 2021 - Jan. 2022*

- A responsive weather app with a user-friendly UX/UI. Displays current weather, future weather trends, and other pertinent meteorological information.
- Technologies Used: React JS, OpenWeatherMap API