

Joban Mand

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EDUCATION

University of Washington

Seattle, WA

- *BS in Computer Science (GPA: 3.61), Data Science Addition* - Relevant Coursework: Data Structures and Parallelism, Discrete Mathematics and Probability, Software Design and Implementation, Systems Programming, Hardware/Software Interface, Linear Algebra, Data Management Expected June 2026

WORK EXPERIENCE

UW CSE ICTD Lab Machine Learning Researcher

June 2024 – Present

Researcher and Engineer

Seattle, WA

- Worked with PhD Student Emmanuel Mensah on an environmental-focused research project that uses the Hyak supercomputer to build an optimized low-resource ML model and write a full-scale publication paper on its final abilities.
- Developed, optimized, and coded geospatial computer vision-based species detection model that takes camera trap image sets and plots species distribution maps across the globe, designed to be able to be run in the field on low-power systems.
- Optimized validation accuracies and runtimes by 25% by rewriting Convolutional Neural Network logic across models.

UW CSE WordPlayPen Designer and Engineer

June 2024 – Present

Researcher and Engineer

Seattle, WA

- Worked with Amy J. Ko and a wide range of undergraduate students and volunteers to help develop, debug, test, and expand the WordPlayPen educational programming system, ranging from UI updates viewed by 100+ educators to designing a regex code feature in the WordPlay language.
- Through work on WordPlayPen's backend, reduced UI/UX clutter by 20% by leading a major revision program, and spent 2 months working with others to draft a fully functional chatbot inspired by Eliza.

LEADERSHIP EXPERIENCE

Seattle Community Network

June 2024 - September 2024

Web Development Volunteer

Seattle, WA

- Increased the speed, fluidity, flexibility, and changeability of the Network's website by rewriting 10% (500+ lines) of the website code database.
- Gained valuable hands-on experience through the deployment of 8+ network infrastructure pieces across 10 square miles to help provide potential internet connectivity to 50,000+ people.

Ability RSO - University of Washington, Paul G. Allen School

November 2023 - Present

Officer - Project Manager

Seattle, WA

- Planned, implemented, and ran 7+ large-scale events hosting an average of 30+ University of Washington students across 2023 to the present, partnered with Oracle, Uber, and other industry affiliates, researched and presented a slide deck to 40+ students about the history of disability activism at the UW, and provided crucial support and funding over 20k dollars to activism groups fighting at the state and federal levels for great accessibility for University students.

WASHPIRG and Washington Community Action Network

October 2023 - Present

Lead Campaign Volunteer and Grassroots Lobbyist

Seattle, WA

- Worked for two correspondent Grassroots Lobbyist organizations on MLK Day to lobby legislative aides, representatives, and senators. Focused on the Keep Our Care Act (HB 1263), but also pushed expanding the Washington State Clemency & Pardons Board (HB 1189) and the Gift Card Accountability Act (HB 2094).
- Currently leading a UW Student coalition in opposition to the Washington Initiative 2117.

SKILLS & INTERESTS

- 6 Years of JAVA experience, 2-3 Years+ in HTML, CSS, JavaScript, TypeScript, Python, C, Git, Unreal Engine, Node.js, Svelte, Netbeans, TensorFlow, and IntelliJ. Skilled in React, PyTorch, SQL, Azure, C++, TensorFlow, Bash Scripting, Pandas, Numpy, PyCharm, and Matplotlib. Experienced in coding while integrating diversity and inclusion, and Trilingual.

PROJECTS

PyTorch Custom Dataset Convolutional Neural Network Model and Engine - | PyTorch | Numpy | Matplotlib

- Engineered a highly successful custom-built PyTorch Model that uses Neural Networks on the challenging FGVC_Aircraft dataset with built-in data loaders, file path specifiers, and a custom powerful engine.

Flashcard App - React.js | TypeScript | JavaScript | Node.js

- Designed, developed, tested, and optimized a fully functional, advanced Flashcard application used by 10+ high school and University students that allows customers to store decks, track/save run scores, and share them.

C Custom Memory Allocator - C | Bash | UNIX

- Built a custom, slightly optimized version of the Malloc function to gain more experience with computer architecture.