## **JOSHUA NEGREANU**

Computer Science, Mathematics, and Artificial Intelligence Student at Oregon State University Honors 🙎 linkedin.com/in/joshnegreanu 🛮 💻 github.com/joshnegreanu 🗡 joshnegreanu.com □ negreanj@oregonstate.edu \(\colon\) (503) 734-0196

### **SKILLS SUMMARY**

Python, C, C++, JavaScript, C#, Java, x86 Assembly, HTML, SQL, PHP, Node.js Languages

- Intro to Artificial Intelligence (A\* search problems, adversarial search trees, pruning, Bayesian networks)
- Machine Learning and Data Mining (logistic regression, SVMs, neural networks, decision trees, ensembles, SVD)
- Operating Systems 2 (bootloader, virtual memory, paging, system calls, context-switching, multi-core, IPC)
- Intro to Databases (database design, queries, relational algebra, E-R schemas, HTTP protocol, server-side scripts)

AI Toolkits NumPy, PyTorch, SciPy, Matplotlib, Pandas

- Thesis Research (reinforcement learning, probabilistic inference, measure theory)
- Machine Learning and Data Mining
- Intro to Artificial Intelligence

Multithreading CUDA, OpenMP, OpenCL, OpenGL, SIMD, MPI, DGX

Intro to Parallel Programming (Amdahl's Law, Moore's Law, functional decomposition, hyperthreading)

Agile development, Jest unit/UI-integration testing, Cypress end-to-end testing, GitHub Action workflows **Industry** 

Software Engineering 1 (requirements engineering, system modeling, software architecture, project management)

Software Engineering 2 (version control, automated software testing, continuous integration/deployment)

**Soft Skills** Orderly, flexible, reliable team member, disciplined, open-minded, precise communicator, creative, value diversity

### WORK EXPERIENCE

## Thesis Research: Attacks on Stochastic Dueling Bandits

May 2024 – Present

Oregon State University College of Engineering

- Analyze and conceptualize mathematical framework for action/reward poisoning algorithms within stochastic dueling bandits context (reinforcement learning area used for online recommendation systems) to develop algorithms more robust to corruption.
- Engage with and present at weekly graduate bandit reading group exploring linear, adversarial, etc. bandits and other RL problems.

### Operating Systems Learning Assistant (CS 374)

Sep 2023 - May 2024

Oregon State University College of Engineering

- Held office hours, tutored 40+ students, aided in debugging. Graded assignments, utilized shell scripts, communicated with professor.
- Assessed projects written in C spanning areas of multithreading, shell creation, file I/O, network protocols, cryptography, UNIX OS.

### **Data Structures Learning Assistant** (CS 261)

Apr 2023 – Jun 2023

Oregon State University College of Engineering

- Conducted biweekly grading demos for 30+ students. Displayed quick adaption to student code, assessed level of understanding.
- Mentored students with projects, met weekly with professor and assistants. Assignments on lists, trees, hash tables, queues, heaps.

# Gen Engineering Learning Assistant (ENG 101)

Sep 2022 – Dec 2022

- Oregon State University College of Engineering
- Prepared and led recitations alongside fellow assistants. Mentored students on industry programs: COMSOL, MATLAB, Simulink.
- Maintained communication with professor and coordinated meetings regarding class structure and objectives. Graded assignments.

## **Leadership Circle Volunteer for the Honors College**

Sep 2021 - Jun 2022

Oregon State University Honors College

Devised methods to improve diversity and inclusion in Honors College. Led group discussions, wrote detailed team meeting notes.

## **EDUCATION**

#### **Oregon State University** (Honors College, College of Engineering)

Sep 2021 – Jun 2025

BS Computer Science (Artificial Intelligence)

GPA: 4.00/4.00

- BS Mathematics (Applied)
- MS Artificial Intelligence (Accelerated Masters Platform, 2026 completion)

# Catlin Gabel School (High School)

Sep 2017 - Jun 2021

FRC Robotics (Fabrication, Code, CAD)

GPA: 4.00/4.00

## PERSONAL INTERESTS

Sports	Ultimate Frisbee Club (Oregon State University), Track (Catlin Gabel varsity), Tae Kwon Do (instructor, demo team)
Outdoors	Rock climbing, hiking, running, mountain biking, snowboarding, kayaking, paddle-boarding, backpacking, camping
Creative	Piano (9 years, OFMC 3 <sup>rd</sup> Gold Cup, Oregon Duet Competition Winner), guitar, painting, drawing, music production