JOSHUA NEGREANU

Computer Science BS, Mathematics BS, and Artificial Intelligence MS student studying at OSU Honors

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EDUCATION

Oregon State University	*Sep 2021 – Jun 2025*	**Catlin Gabel School**	*Sep 2017 – Jun 2021*

Honors College, College of Engineering   **GPA: 4.00/4.00**   *High School*   **GPA: 4.00/4.00**

- **Undergrad**: BS Computer Science (*Artificial Intelligence*)
  BS Mathematics (*Applied*)
- **Graduate:** MS Artificial Intelligence (*Accelerated, +1 yr*)

- FRC Robotics   *Fabrication, Code, CAD, Videography*
- CommuniCare   *Volunteer, Nonprofit Fundraising*

WORK EXPERIENCE

Thesis Research: Attacks on Stochastic Dueling Bandits   *May 2024 – Present*
Supervisor: Huazheng Wang   *Oregon State University*
- Analyzing and conceptualizing mathematical framework for action/reward poisoning algorithms within stochastic dueling bandits context (*reinforcement learning area used for online recommendation systems*). Active member of graduate bandit reading group.

Operating Systems Learning Assistant (CS 374)   *Sep 2023 – May 2024*
Supervisor: Benjamin Brewster   *Oregon State University*
- Held office hours, tutored students, aided in debugging. Graded assignments, utilized scripts, and communicated with professor.
- Projects written entirely in C and span areas of network protocols, multithreading, shell creation, file I/O, cryptography, UNIX OS.

Data Structures Learning Assistant (CS 261)   *Apr 2023 – Jun 2023*
Supervisor: David Hendrix   *Oregon State University*
- Led students through grading code demos. Required quick adaption to specific 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*
Supervisor: Jason Clark   *Oregon State University*
- 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*
Supervisor: Toni Doolen   *Oregon State University*
- Devised methods to improve diversity and inclusion in Honors College. Led group discussions, wrote detailed team meeting notes.

SKILLS

Coding Languages	Python, C, C++, JavaScript, C#, Java, HTML, SQL, PHP, Assembly
AI Toolkits	NumPy, PyTorch, SciPy, Pandas, Matplotlib
Multithreading	CUDA, OpenMP, OpenCL, OpenGL, SIMD, MPI
Industry Skills	Agile development, Jest unit/UI-integration testing, Cypress end-to-end testing, GitHub Action workflows
Soft Skills	Motivated, open-minded, clear and concise, flexible, detail-oriented, respectful, value diversity
Languages	English, Romanian (*limited*), Spanish (*limited*)

RELEVANT COURSEWORK

Machine Learning and Data Mining (CS 434)   Stefan Lee
- *Logistic regression, SVMs, gradient descent, neural networks, decision trees, ensembles, PCA/SVD, KDE, reinforcement learning*

Intro to Artificial Intelligence (CS 331H)   Prasad Tadepalli
- *Single/multi-agent, search problems (A*), constraint satisfaction, adversarial tree search, alpha-beta pruning, Bayesian networks*

Intro to Parallel Programming (CS 475)   Mike Bailey
- *OpenMP, Amdahl's Law, Moore's Law, functional decomposition, SIMD SSE, hyperthreading, CUDA, DGX, OpenCL, MPI*

Operating Systems II (CS 444)   Yipeng (Roger) Song
- *Bootloader, protected mode, virtual memory, paging, processes, user/kernel, system calls, context-switching, multi-core, IPC*

*Other Courses***:** Analysis of Algorithms, Intro to Computer Networks, Intro to Databases, Linear Algebra II, Complex Variables

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 3rd Gold Cup, Oregon Duet Competition Winner*), guitar, painting, drawing, music production