

# Aayush Koirala

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## EXPERIENCE

### University of Massachusetts Amherst, (CICS)

Amherst, MA

*Undergraduate Research Assistant*

*Summer 2024*

- Conducted research focused on Machine Learning (ML) security under the guidance of a graduate leader.

### Headstarter AI

Remote

*Software Engineer Fellow*

*Summer 2024*

- Participated in a 7-week software engineering fellowship focusing on building 5 AI projects, 5 weekend hackathons, and a final project.
- Engaged in interview prep, resume reviews, and received feedback from real software engineers.
- Currently working on a final project aimed at raising \$1000+ with 1000+ users.

### SoarCS

Lowell, MA

*Student*

*Summer 2022*

- Participated in a pre-semester program, SoarCS, enhancing coding skills and networking with fellow students.
- Attended Red Hat's DevConf.US conference.

### Elevate the Future Massachusetts

Acton, MA

*Teacher*

*Jan 2021 - Sep 2022*

- Taught computer science and business principles to over 300 middle and high school students with a team.
- Led a 6-week introductory Python programming course and introduced data structures concepts.

## PERSONAL PROJECTS

### Ohara Manga Library | *Django, PostgreSQL, Python*

June 2023 - July 2023

- Developed a full-stack Django project available at [github.com/AKSProjects/mangarep](https://github.com/AKSProjects/mangarep).
- Created a library website using PostgreSQL and Django.
- Managed project with a team using Git and GitHub.
- Features: Database of 24,165 Animes and 67,273 Mangas, genre-based top 100 lists, search functionality.
- Technologies: Kaggle, PostgreSQL 15-3.1, Django, Python scripts for data processing.

### Hangman | *C, Linux*

Jan 2023 - May 2023

- Created a Hangman game (GitHub: [github.com/aayushkoi/Hangman](https://github.com/aayushkoi/Hangman)) using C on Linux.
- Implemented data structures like AVL tree, vector structures, and an associative array.
- Proficient in C Programming, Data Structures, Linux Development, Custom String Handling.

## TECHNICAL SKILLS

**Technical Languages:** JavaScript, TypeScript, C++, C, HTML/CSS, Python, Git, GitHub, Java, PostgreSQL

**Languages:** English, Nepali, Hindi, Spanish (Intermediate)

## EDUCATION

### University of Massachusetts Amherst

Amherst, MA

*Bachelor of Science in Computer Science*

*Expected Fall 2025*

- Relevant Courses: Data Structures, Object Oriented Programming, Computer Systems Principles/Assembly, Discrete Mathematics, Reasoning Under Uncertainty, Programming Methodology.