# Shouvik Ahmed Antu

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# Education

Willamette University, Salem, OR

Bachelor of Science in Computer Science and Data Science expected graduation in May 2026 with a Mathematics Minor.

#### **Peer-Reviewed Paper**

Ahmed Antu, Shouvik, et al. "Using LLM (Large Language Model) to Improve Efficiency in Literature Review for Undergraduate Research" CEUR Workshop Proceedings, 7 July 2023, <u>ceur-ws.org/Vol-3487/short2.pdf</u>.

# Experience

#### Willamette Integrated Technological Service | Web Developer Intern | Salem, OR | May 2023 - Present

- Debugged and fixed a recurring PHP database lagging issue, improving data retrieval efficiency and reducing load times.
- Transformed the new student orientation grouping process with Python-based automation, cutting the time from days to 15 minutes.
- Implemented PHP code refactoring, which resulted in a 12% increase in application performance.

#### McMinnville Soccer Club(MSC) | Web Developer Intern | McMinnville, OR | Apr 2024 - Present

- Updated and built new web pages, conducting thorough quality assessments including cross-browser compatibility checks and mobile responsiveness testing.
- Rebuilding MSC's entire web communication infrastructure including social media presence.
- Implemented SEO strategies such as keyword optimization, meta-tag enhancements, and backlink analysis to improve website visibility and search rankings.

#### Willamette University | Research Assistant | Salem, OR | Aug 2023 - Aug 2024

- Developed a new curriculum to integrate AI into CS1 and CS2 classes.
- Created a new platform to streamline content creation for teachers using Large Language Models.
- Incorporated self-determination theory, active recalling, and the Feynman technique to improve student engagement and competence.

## Skills

- Programming Languages: Bash, C#, JavaScript, .Net, PHP, PostgreSQL, Python
- Frameworks/Libraries: Tensorflow, Pandas, Numpy, SvelteKit, ggPlot, TidyVerse, NextJS, React Native, ReactJS, TailwindCSS, Scikit-learn, Matplotlib
- Databases: Firestore (Firebase), SQL (Relational Databases), MongoDB (Non-relational)
- Tools/Platforms: Adobe Suite, Cascade CMS, Firebase, Git & GitHub, Jira, Wrike, R-Studio

## Projects

McMinnville Soccer Club Ecosystem: Redesigned and made the entire ecosystem of McMinnville Soccer Club using nextjs.

**Pedalogical - An AI-assisted learning platform**: An LLM-powered platform to assist teachers with content creation for students using the learning outcomes of each module to reduce teacher burnout.

**MGAI** - **Multimodal Generative AI:** Researching observer phenomena and performing a cognitive load test on generative LLMs to compare generated responses.

**Mushroom detection and classification**: Detected Chanterelle and False chanterelle mushrooms through binary classification using neural networks and pre-trained models.

**W-IMS(Willamette Intramural Management System)**: Used NextJS to create an event management system for Willamette University's intramural program, with a hierarchical design to distinctly cater to staff and student needs.

## Awards & Recognition

- Youth Exchange and Study (YES) Scholar Full scholarship to study an academic year in the US | 2021-2022
- Student of the Year Bangladesh Intl' School & College | 2019
- Honor Roll Willamette University | 2022, 2023, 2024