# Arya Sanjay

aryas1@cs.washington.edu | 425-559-1415 | linkedin.com/in/arya-sanjay-cs/ | codingwitharya.github.io/Portfolio/

## SUMMARY

Innovative and driven Computer Science student at the University of Washington-Seattle with a robust background in software development, machine learning, and analytics.

## EDUCATION

**University of Washington, WA, USA** (2023 - June 2026)
- B.S., Computer Science & Data Science
- Relevant Coursework - Data Structures and Parallelism (Java), Database Management (SQL), Hardware/Software Interface (C, Linux), Foundations of Computing I & II (Theory), Computer Programming II & III (Java), Calculus Series, Linear Algebra
*Dean's List Quarterly Award, National Merit Commended Scholar*

## SKILLS & COMPETENCIES

- **Programming Languages |** Java, JavaScript, C, Python, R, HTML, MATLAB, CSS, SQL
- **Development Tools |** Visual Studio, Git, RStudio, AWS, IntelliJ, React, Linux, Google Firebase, APIs (RESTful)
- **Machine Learning & AI |** PyTorch, Tensor Flow, NLP, BERT, Word2Vec, XLNet

## PROFESSIONAL EXPERIENCE

**Undergraduate AI Research Assistant,** Mobile Intelligence Lab                              *(Jan '25 - Present)*
University of Washington, WA
- Developing a **real-time predictive translation system** using **large language models (LLMs)** to eliminate translation delays, leveraging Python, TensorFlow, and Hyak clusters.
- Integrating LLMs with streaming translation models inspired by **Meta's SeamlessM4T**, improving prediction accuracy and enabling robust self-correction capabilities.
- Conducting advanced **natural language processing (NLP)** research to optimize translation fluency and showcased findings in cross-disciplinary research discussions.

**Undergraduate ML Research Assistant,** Disaster Data Science Lab                              *(June '24 - Sept '24)*
University of Washington, WA
- Led ML research, developed 10+ major predictive machine learning models including XGBoost and Neural Networks in Python with large NBI datasets under U.S. D.O.T. to predict bridge characteristics better aligned with predictions of current bridge performance in natural hazards, enabling data-driven emergency prioritization planning for WA.
- Improved **model accuracy by 3-15%** through extensive database cleaning and feature engineering leveraging Python and machine learning libraries such as TensorFlow, NumPy, and Scikit-Learn in this paid research role.
- Utilized NLP embeddings (BERT and XLNet) to better analyze textual data to improve **model performance by 7%**.
- Collaborated cross-functionally and interdisciplinarily with advisors and UW Civil Engineering team.
- Work showcased at Pacific Earthquake Engineering Research Center.

**Maple Room Study App Founder & Developer**                              *(June '24 - Present)*
University of Washington, WA
- Developed web application using React, Python, HTML/CSS/JS, Google Firebase, and Django to improve study room access for **600+** Maple Hall residents by allowing students to check real-time room availability.
- Managed back-end services with **Django**, utilizing **RESTful APIs** and **AWS** (via Alexa Timers API) for functionality.

## LEADERSHIP & ACCOMPLISHMENTS

- **Outreach Head, Women in Computing (WiC)**: Running beginner-friendly CS workshops for 50+ K-12 students, increased attendance by ~40% through outreach efforts. Lead weekly committee meetings.    *(Nov '23 - Present)*
- **Education Lead, Interactive Intelligence Club**: Led/designed intro course for 100+ students, delivering 50+ hours of content, and leading 6 TAs. **Co-authored** 118-page textbook on ML, DL, CV, RL & LM.    *(June '24 - Present)*
- **Interactive Intelligence Teacher's Assistant**: Facilitated a 10-week Deep Learning/Neuroscience course with Python, PyTorch, and LaTeX for largest TA group (~30% of the class) with 50+ hours of content.    *(Mar '24 - June '24)*
- **Kaggle Competition Club Co-Lead:** Directed weekly predictive ML workshops on Linear/Logistic Regression, Random Forest, XGBoost models in Python to 20+ students. (Matplotlib, Pandas, Numpy).    *(Jan '24 - Mar '24)*