ADITYA KHOWAL

Bellevue, WA 98008 | (425) 628-9155 | akhowal@uw.edu
linkedin.com/in/Aditya-Khowal | github.com/AdityaKhowalGithub

EDUCATION

University of Washington - BS, Computer Science, Annual Dean's List Recipient, **GPA 3.8**   June 2025
Relevant Coursework: Artificial Intelligence, Database Systems, Data Structures and Algorithms, Data Science, Intro to Programming, Client-side development, Foundations of information

EXPERIENCE

Artificial Intelligence Research Intern | University of Missouri   May 2023 - August 2023

NSF funded research on AI optimization   Python | PyTorch | matplotlib | seaborn | AI optimization
- Reduced blood waste by **15%** through the development and testing of a **machine learning model** using **PyTorch** and gurobipy for blood ordering policy
- **Identified key areas for improvement** through an extensive literature review and exploratory analysis using seaborn and matplotlib.
- Developed basecalling protocal using Python and Chiron packages for nanopore technology

Backend Software Engineering Intern | Bond Intelligence   June 2021 - September 2022

Financial Dashboard for Bond Investment information   React | JavaScript | Python | SQL | Docker | Kubernetes
- Increased user engagement by **40%** through the development and deployment of a user-friendly full-stack web application using React that enabled over **10,000** users to easily access demographic information for municipal bonds.
- Enhanced user experience by converting complex bond data into visually appealing charts and diagrams using JavaScript and Chart.JS.
- Decreased web app load times by **70%** through performance optimization utilizing SQL queries to clean up redundant data and optimize views.

Python Lead | Stanford 106A   Jan 2023 - March 2023

Section lead for Stanford intro Python class   Python | Data Structures | OOPS | Teaching | Organization | Communication
- Enhanced student understanding by leading weekly discussion sections and campfire office hours to **7-10 students** for Stanford's introductory CS 106A python course.
- Improved student proficiency by teaching concepts including programming fundamentals **object-orientation**, **data structures**, and **recursion**.

Teacher Assistant | University of Washington ISchol   June 2023 - September 2023

Informatics 340 Client side development TA   HTML | CSS | JavaScript | React | OOP | Client side dev | Javascript frameworks
- Improved student proficiency by teaching **front-end development** using HTML, CSS, JavaScript, and React to build interactive webapps.
- Provided valuable assistance by leading weekly lab sessions and office hours to help students with assignments and projects.

PROJECTS

NanoGPT - Philosopher edition   **Python | PyTorch | Transformers | Jupyter**
- Generated philosophical content by developing a fork of NanoGPT using **Python** and **PyTorch** to analyze the philosophical works of Immanuel Kant.
- Achieved an impressive average perplexity score of **1084** by training and fine-tuning the model with a dataset of over **50,000 pages** from Kant's books and essays and passing through GPTZero.

Tech Layoff Tracker   **R | Data Science | ShinyApp**
- Developed a comprehensive tech industry layoff tracker and report using **R** and **ShinyApp**. The tracker includes an interactive map of layoffs and an in-depth analysis of layoff trends.
- Identified key layoff trends and compiled relevant insights by generating a data-driven analysis for a dataset of over **40,000 rows**, to help companies make informed decisions.

TECHNICAL SKILLS

Front End | React, JavaScript, NodeJS, CSS, Flutter
Back End | Python, Java, C++, SQLite, MySQL, R
Technologies | Jest, Kubernetes, Docker, Git, npm, Firebase, GitHub