Omkar Yadav

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Education

University of Michigan **Ann Arbor, MI**
Bachelor of Science and Engineering in Computer Science Minor in Math and Stats May 2024

- GPA: 4.0/4.0
- Relevant Coursework: Theoretical Machine Learning, Human-Centered Machine Learning, Computer Vision, Data Structures and Algorithms, Database Management Systems, Computer Organization, Theory of Computing, Numerical Methods, Bayesian Analysis, Linear Algebra, Compilers, Web Systems
- Honors: William Branstrom Freshman Prize, College of Engineering Dean's Honor List

Relevant Work Experience

Amazon Web Services Software Development Intern*, Seattle, Washington* May 2023 - August 2023

- Created AWS Glue scripts to autonomously join real time data, assisting network engineers in alleviating high severity tickets that cause outages for millions of AWS customers
- Developed a centralized user interface through AWS quicksight to enable network engineers to determine areas of high congestion during influxes of traffic, mitigating any latency delays for clientele
- Crafted relevant metrics using AWS Cloudwatch to cut actions to notify engineers when system failure incurred thus mitigating customer impact

Proquest Machine Learning Student Researcher**,** *Ann Arbor, Michigan* January 2023 - Present

- Wrote efficient scripts to preprocess millions of academic dissertations, extracting meaningful features used for our machine learning pipeline
- Researching state-of-the-art approaches of topic modeling to build a system that can predict the popularity of a given research topic over time that will be part of Proquest's customer facing products
- Training machine learning models to determine the academic success of emerging research topics achieving a precision at k of 60%, helping Proquest determine potential emerging research fields

Amazon Web Services Software Development Intern*, Seattle, Washington* May 2022 - August 2022

- Built a centralized system leveraging AWS Eventbridge to enable services to publish events and trigger asynchronous actions, saving team members hours from repeatedly pulling API data
- Designed a metrics dashboard that quickly identified issues regarding my service's health, allowing engineers to efficiently locate bugs, reducing ticket times by
- Generated an algorithm to find the change in objects after database operations, enabling third-party services to autonomously audit changes in our application
- Instilled AWS Lambda to produce an event-driven architecture workflow to automate data alteration, eliminating 5 hours of work for engineers weekly

Extracurricular Experience

M-Navigate IOS Application, Co-Founder and Lead Developer December 2021- Present

- Coded a React Native mobile application with 4000 downloads, aiding students to find their University of Michigan classes and buildings
- Constructed an SQL database and a REST API using Google Cloud infrastructure to efficiently transfer large amounts of data to mobile devices mitigating download restrictions

Michigan Hackers, Machine Learning Subteam Lead August 2021- Present

- Writing lesson plans and projects to convey introductory machine learning topics in a digestible format for over 150 students who are new to the field
- Assembled an Alzheimer's classification model to help physicians detect Alzheimer's at an early stage, performing at an 82% accuracy rate

Technical Skills

Computer: Java, Python, JavaScript, TypeScript C++, Matlab, HTML/CSS, SQL, React Native, Rust
Tools: Git, Visual Studio Code, IntelliJ, Sklearn, Pytorch, Android Studio, Jupyter Notebook, AWS, Google Cloud Platform