

# Vandan Shah

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## EDUCATION

### University of Michigan

Ann Arbor, MI

*B.S. Computer Science Engineering, GPA: 3.8*

*May 2025*

- **Relevant Coursework:** Data Structures & Algorithms, Information Retrieval, Web System Development, Network Systems, Computer Architecture, Object Oriented Programming, Data Analysis, UI/UX Design
- **Minors:** Business Administration (Finance & Operations) and Multidisciplinary Design

## EXPERIENCE

### Ciena Corporation

Alpharetta, GA

*Software Engineer Intern*

*June 2024 - August 2024*

- Architected and implemented a data intake application serving 450+ clients, resulting in annual savings of \$40,000+, streamlining data flow across the organization using Microsoft PowerApps and Automate
- Engineered API endpoints utilizing ServiceNow and Snowflake, resulting in a 300% boost in team productivity
- Led cross-platform integrations, leveraging Mulesoft and Oracle Cloud to automate audits with Python scripts
- Designed 15+ Datadog dashboards to monitor server health status and URL reliability across test and production environments, improving system performance tracking

### Aptiv PLC

Troy, MI

*Software Developer*

*January 2024 - April 2024*

- Developed Python and MATLAB scripts with 98%+ accuracy validating over 200,000 log files, analyzing environmental conditions to optimize Advanced Driver Assistance Systems (ADAS) feature simulation testing
- Utilized Principal Component Analysis (PCA) and Exploratory Data Analysis (EDA) techniques on time-series and video data from sensors, effectively reducing dimensionality by 33% while preserving key features and patterns
- Leveraged Weather API integration to validate algorithm robustness, enhancing system accuracy and reliability

### Schlumberger

Houston, TX

*Software Engineer Intern*

*May 2023 - August 2023*

- Developed interactive platform using Angular, Node.js, and API integration, enabling 12+ visualizations of user-selected production data from 150+ pressurized drilling systems, streamlining oil attribute analysis
- Engineered efficient data pipelines by crafting custom queries via REST APIs, accessing 25,000+ real-time data records from the Cognite Database, delivering instantaneous production metrics and customer insights
- Automated unit testing with Jasmine and Karma, achieving 90%+ code coverage for micro service applications
- Integrated CI/CD practices utilizing Azure DevOps, facilitating efficient code deployment and system optimization

### Hyundai Motor Company

Fountain Valley, CA

*Machine Learning Research Intern*

*January 2023 - April 2023*

- Designed Machine Learning models with 75%+ accuracy to analyze over 31,000,000 vehicle data points, utilizing Python, SQL, and Natural Language Processing algorithms, significantly enhancing passenger and vehicle safety
- Engineered comprehensive platform with React, Node.js, and SQLite with the Open AI API to issue hazardous vehicle recalls, increasing efficiency by 500%, decreasing data load time to <5 seconds
- Implemented Selenium based automatic programs to examine 20,000+ incomplete investigations and recall reports

## PROJECTS

### Instagram Clone | Javascript, Flask, React, PostgreSQL, AWS

- Developed a full-stack Instagram clone with React, Flask, and SQLite, integrating infinite scroll, user authentication, and dynamic content updates features, hosted on AWS for enhanced user engagement
- Streamlined real-time data interactions via AJAX and REST APIs, ensuring secure user experiences with HTTP Basic Access Authentication and rigorous end-to-end testing for functionality and user interface

### Sign Language Translator | Python, TensorFlow, OpenCV

- Designed an AI powered ASL learning game with 96% accuracy, detecting real-time hand signs via computer vision
- Trained CNN models on 87,000 images to classify ASL gestures, enabling accurate and interactive sign detection

## TECHNICAL SKILLS

**Languages:** C/C++, Python, Java, SQL, JavaScript, TypeScript, HTML/CSS, ASM

**Frameworks/Tools:** React, Node.js, Flask, Angular, JQuery, Amazon Web Services (AWS), Git, VSCode, NumPy