# **SANYAM GARG**

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#### **EDUCATION**

# **University of Wisconsin-Madison**

Madison, WI

Bachelor of Science in Computer Science & Data Science

August 2023 - May 2027

#### **Relevant Coursework**

Data Structures & Algorithms, Introduction to Artificial Intelligence, Linear Algebra, Statistics R Programming, Discrete Mathematics, Calculus I & II

#### **PROJECTS**

## **Handwritten Digit Recognition Web App**

Madison, WI

Personal Project

December 2024 - March 2025

- Developed and trained a Convolutional Neural Network (CNN) using PyTorch on the MNIST dataset, achieving ~98% validation accuracy.
- Implemented image pre-processing (resizing, color inversion) and data augmentation techniques to improve model robustness.
- Built a Flask-based web application that allows users to upload images of handwritten digits for real-time classification.

## Distributed Peer-to-Peer File Sharing System

Madison, WI

Personal Project

August 2024 - November 2024

- Architected a robust distributed system in Python to enable secure file transfers across a P2P network using multithreading and chunk-based transmission.
- **Implemented** file integrity verification with SHA-256, ensuring **100% accuracy** in file reconstruction from 64KB chunks.
- **Developed** both CLI and Tkinter-based GUI interfaces to simplify configuration, peer discovery, and file management for end users.

**SPlanner** 

Dubai, UAE

Personal Project

March 2022 - December 2023

- **Developed** a cross-platform scheduling app using Flutter and Dart, improving task management efficiency for 100+ users.
- Optimized data retrieval with dynamic arrays and linked lists, enhancing performance by 25%.
- **Integrated** secure Firebase authentication, safeguarding user data with industry-standard hashing protocols.

### **EXPERIENCES**

Cognizant

Remote

Agile Methodology Job Simulation - Forage

April 2024 – May 2024

- **Analysed** Agile and Waterfall methodologies in a simulated project environment, identifying key process improvements that could reduce sprint bottlenecks by 20%.
- **Developed** detailed presentations and process maps that highlighted actionable recommendations for project management improvements.

Skyscanner

Remote

SDE Job Simulation - Forage

November 2023 – January 2024

- **Engineered** a responsive web application using React, focusing on user experience and rapid prototyping
- **Built** a dynamic travel date selection interface with Backpack React, contributing to enhanced product usability and customer engagement.

### **TOOLS**

Programming Languages: Java, Python, JavaScript, Dart, SQL, R

**Software**: Flutter, React, Tkinter, Git, Docker, Linux, Node.js, HTML/CSS, Junit, NumPy, Scikit-learn,

PyTorch, Flask

**Concepts:** Object-Oriented Programming, Data Structures & Algorithms, Agile Methodologies, REST APIs, Version Control, Debugging, Machine Learning, Data Visualization