Sugam Jaiswal

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Education

Master of Science in Computer Science and Software Engineering   Expected May 2024
University of Washington, Bothell, WA
· **CGPA**: 3.87
· Relevant coursework: Algorithm Design and Analysis, Evaluating Software Design, Research Methods in Software Development

Bachelor of Technology in Computer Science and Engineering   Aug 2018 - July 2022
Vellore Institute of Technology, Vellore, India
· **CGPA**: 3.6
· **Awards**: Merit Scholarship for outstanding performance in the academic years of 2018-19 and 2020-21
· Course Highlights: Human Computer Interaction, Internet of Things, Artificial Intelligence, Natural Language Processing, Cyber Security

Experience

Software Engineer Intern, **Resimplifi Inc** (Columbia, SC)   June 2023 - Present
· Processed and cleaned over 50,000 data samples existing in multiple formats like texts, pdfs and images, and compiled meaningful datasets out of them in CSV format using Python and other libraries like re, pdfminer, tesseract and OpenCV
· Built a custom Named Entity Recognition pipeline for real estate documents using Python and SpaCy which achieved an accuracy score of 91% and completely automated the entity extraction process in production

Grader, **University of Washington** (Bothell, WA)   Sep 2022 – May 2023
· Graded over 150 coding assignments and exams every week for 4 different undergraduate computer science courses in data structures, algorithms, discrete mathematics, programming and debugging in Python, JAVA, C++, etc.
· Provided technical feedback and constructive suggestions on each submission using prescribed guidelines and coding standards

Web Development Intern, **Finchafin** (India)   May 2021 – June 2021
· Designed the UI/UX and developed the front-ends for 3 responsive fintech websites using React and Bootstrap, showcasing features like user profiles, personalized homepages, interactive charts, etc.
· Used Node.js for the backend development, creating RESTful APIs using Express, and connecting to databases using MongoDB

Technical Skills

· **Programming Languages:** Python (Fluent), JAVA (Fluent), JavaScript, C++, SQL
· **Web Development Stack:** HTML, CSS, React, Redux, Node, Express, Flask, MongoDB, REST APIs
· **Artificial Intelligence:** Numpy, Pandas, SkLearn, TensorFlow, NLTK, SpaCy, OpenCV, Matplotlib, Large Language Models (LLMs)
· **Other Software Development Tools:** GitHub, Docker, Linux, Visual Studio Code, SDLC, Heroku, Postman, Jupyter Notebook

Projects

Offensive Language Identification System (Published Paper)
· Developed a web application using HTML, CSS and Flask to help users filter out offensive texts based on Naïve Bayes algorithm
· Implemented multiple data pre-processing techniques using NLTK to clean the dataset comprising approximately 13,000 texts
· Achieved 70% accuracy in identifying offensive texts using Naive Bayes and improved the accuracy to 75% using LSTM

Scalable Image Recognition using Vocabulary Tree
· Developed a scalable and efficient image recognition system using vocabulary tree data structure and feature extraction algorithms which drastically increased the image retrieval time compared to existing methods
· Applied the system to the COCO dataset made up of 330K images and 200K videos of various objects using C++ and OpenCV, and demonstrated the scalability and effectiveness of the application on both images and videos

Certifications

Front-End Web Development with React (The Hong Kong University of Science and Technology), **Machine Learning** (Stanford Online), **AI for Everyone** (Deep Learning. AI)