Mahati Madhira VSK

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Education

New York University, Tandon School of Engineering, NY | **GPA: 3.7**   Sep 2021 - May 2023
MS Computer Engineering; Coursework: Machine Learning, Deep Learning, Database Systems, Data Structures

GITAM University, School of Technology, Visakhapatnam, India | **GPA: 3.7**   Jun 2016 - Jun 2020
BTech Computer Science; Coursework: Object Oriented Programming, Web Development, Software Engineering

Experience

Acquisitions Student Assistant: KARMS, Bobst Library, New York University   May 2022 - May 2023
• Managed the end-to-end fulfillment of over 30 shipments for NYU, Abu Dhabi
• Coordinated the sourcing, purchasing, cataloging, and shipping of 7000 books, scores

Associate Software Engineer, TATA Consultancy Services, India   Jan 2020 - Jul 2021
• Optimized an Azure-based CI/CD pipeline to develop and deploy components following Agile methodology resulting in a 50% higher deployment frequency and 30% faster time-to-market
• Utilised Automated Testing with Selenium and documented test results for a 30% improvement in software quality
• Migrated project source code from VSTS to Git, conducted code reviews to meet functional and technical requirements

Communication Networks Intern: Defense Research and Development Labs (DRDL), India   Feb 2019 - May 2019
• Designed a two-way communication model with socket programming, TCP/UDP logic and C++/JAVA for GUI
• Incorporated error detection and correction mechanisms, reducing data transmission errors by 25%

Projects

Real-time Chat Application (HTML, CSS, JavaScript)
• Created a full-stack chat application using React.js, Node.js, Express.js, and chatEngine.io that supports 10 users simultaneously with group chats, read receipts, and seamless file sharing.
• Implemented user authentication, socket connections for real-time communication, and an appealing chat interface.

CyberViser: Network Traffic Analyzer powered by OpenAI (Python, SQL)   Jan 2023 - May 2023
• Teamed up with NYU and Princeton researchers, utilizing GPT-4 and data from 44,956 smart home devices to uncover IoT device domains and data leaks
• Manually verified 700 responses from 6 prompts given to GPT to avoid AI Hallucination
• Published the findings on Medium.com titled Eavesdropping on Whispers in your smart home

EDFAR: Exploring Data Augmentation for Adversarial Robustness (Python, PyTorch)   Sep 2022 - Dec 2022
• Applied different data augmentation techniques on CIFAR 10 dataset to evaluate the improvement in machine learning model performance using Python-PyTorch
• After adding Data corruption, it was observed that the model maintains very high accuracy there is a very sharp descent in the accuracy till eps=0.1 from 90% to 15%

Multi Threaded Web Crawler (JAVA, SQL)   Sep 2022 - Dec 2022
• Executed Robotic Process Automation to traverse 80,000 links and Multithreaded approach to implement multiple bots
• Swing Framework for GUI to display scraped URLs and SQLite to store them in the database and JSoup for parsing

CIFAR 10 Image Classification using ResNet-18 with Cutout (PyTorch, Scikit-Learn, Keras)   Dec 2021 - Mar 2022
• Engineered and trained an RNN model with 95.8% accuracy over 4.815 million parameters.
• Implemented weight decay, average pooling, stochastic gradient descent, and CutOut for enhanced model performance.

Skills

Coding Languages: C, C++, Python, Java, Ruby, HTML5, CSS3, JavaScript, C#, .NET, PHP
Front-end frameworks: TypeScript, Tailwind CSS, AngularJS, ReactJS, VueJS, ExpressJS, jQuery, BootStrap
ML/DL Frameworks: PyTorch, TensorFlow, Apache Spark, Keras, Scikit-Learn, Django
Database Management: MySQL, Oracle RDBMS SQL, MSSQL, MongoDB
Cloud Technologies: Microsoft Azure, Azure DevOps, AWS, GCP, Docker, Kubernetes, Jenkins
Data Visualization: Tableau, PowerBI, Microsoft Excel
Operating Systems: Windows, MacOS, LINUX, Android

Certifications

• Responsive Web Design by freeCodeCamp   Dec 2023
• Python Programming Bootcamp by Udemy   Oct 2023
• Data Analytics Essentials by Cisco   Sep 2023