Kartik Alle

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Education

North Carolina State University GPA: 4.0 Raleigh, NC

Bachelor of Sciences in Computer Science, Bachelor of Sciences in Mathematics *Aug. 2022 – Present*

- Related Coursework: Software Engineering, Discrete Mathematics, Linear Algebra, C/Software Tools, Data Structures and Algorithms, Mathematics of Data Science, OS/Networking, Automata/Grammars, Mathematics of Scientific Computing, Real Analysis

Experience

NC State University May 2024 – August 2024

Research Assistant

- Conducted research on detecting network jamming by analyzing log data from a network hotspot
- Reviewed academic papers to determine the essential data points for analysis and then developed Python scripts to extract and analyze data from log files
- Collected and analyzed data to support the professor's research objectives

Optum June 2021 – July 2021

NAFTrack Intern *Remote Internship*

- Designed a tailored patient management system for nursing homes, optimizing healthcare operations
- Utilized established product development frameworks, blending strategic methodologies and innovative approaches to conceive, design, and deliver a highly effective and impactful product
- Delivered project presentations to senior executives, fostering interactive discussions and gaining valuable feedback for project enhancement

Projects

Personal Website | *HTML/CSS, JavaScript, Git/GitHub* May 2024 – Present

- Developed a personal website using HTML, CSS, and JavaScript to showcase projects and professional experience
- Designed and implemented a responsive layout, using JavaScript to create interactive features and enhance user experience
- Incorporated best practices in web development for clean, maintainable code and efficient performance
- Hosted the website on GitHub Pages, ensuring reliable access and version control

Classification of Mushrooms under Various Algorithms | *Python* March 2024 – April 2024

- Conducted research to classify mushrooms as edible or poisonous using various machine learning algorithms.
- Implemented artificial intelligence techniques, including neural networks, Support Vector Machines (SVM), and logistic regression models, to analyze and classify mushroom characteristics.
- Leveraged techniques in data processing, model design, and model evaluation to achieve accurate classification results.
- Utilized Python libraries such as scikit-learn and TensorFlow for data analysis and model development.

PackScheduler | *Java, Eclipse, JUnit, Git/GitHub, Eclipse Plugins* January 2023 – May 2023

- Developed and implemented a student course registration software enabling students to manage their course schedules while providing faculty with real-time enrollment data
- Utilized test driven development principles to ensure accuracy and coverage in code
- Implemented various software development design patterns such as state, adapter, iterator, observer, and strategy
- Made substantial contributions to and actively maintained a large codebase on GitHub, employing effective version control practices

Technical Skills

Programming Languages: Java, Python, C/C++, HTML/CSS, JavaScript, MATLAB, SQL
Developer Tools: Git/GitHub, VSCode, Eclipse, Checkstyle, PMD, JUnit, Jenkins, Command Line Tools, Tensorflow, NumPy, Pandas, SciPy, REST APIs, POSIX APIs, TCP/UDP
Technical Skills: Streams/Lambda Functions, Multithreading, Data Structures/Algorithms, Distributed Systems
Certifications: Microsoft Word and PowerPoint 2013
Languages: English, Telugu