Rithik Sachdev

rithiks@andrew.cmu.edu • rithiksachdev.github.io • LinkedIn - rithik-sachdev • 412-224-8863

EDUCATION

Master of Software Engineering, Carnegie Mellon University   GPA 4/4
Relevant courses: Design Patterns, Requirements for Information Systems, Agile Methods, API Design   December 2024

Bachelor of Technology in Computer Science, Shri G.S. Institute of Technology and Science   CGPA 3.62/4
Relevant courses: Object-oriented programming, Database Systems, Design and Analysis of Algorithm   July 2021

WORK EXPERIENCE

Nextuple Inc. | Software Development Engineer   Bangalore, India | Aug' 2021 – Jul' 2023

- Created a New Relic dashboard with alerts, 95% more effective than Java VM profilers at detecting anomalies and preventing service crashes
- Built novel load balancing custom spring configuration for utilizing multiple readers pods to upgrade performance by 40%
- Integrated Azure into the Promising Engine, cutting hosting costs by 15%, empowering clients to choose most cost-effective solution, and enhancing cloud compatibility and versatility
- Led and facilitated execution of the Camunda workflow automation for order orchestration in promising and sourcing project, reducing errors by 40% and boosting project efficiency
- Implemented near cache in transit Microservice and optimized API calls to item Microservice, resulting in a significant 30-millisecond reduction in API response time for the Promising Engine project
- Developed and deployed multiple features using JAVA RESTful APIs, conducting integration testing with cucumber framework and rigorous unit testing with JUnit for several releases, migrations, and audits

Aaiway | Software Engineering Intern   Indore, India | Jan' 2020 – Jun' 2020

- Created a website using React framework to provide an optimized property cluster for rental and sale properties based on consumer preferences and sentiments
- Collaborated with a team of engineers and UX designers to ensure responsive design and smooth user experience across various devices
- Leveraged the Google Speech to Text API, Google Dialogflow, and socket.io to craft an interactive chatbot for seamless gathering of consumer information

ACADEMIC PROJECTS

Warehouse pick path optimization   Feb' 2023 – Mar' 2023

- Computed optimal picking paths utilizing greedy Dijkstra's algorithm, considering actual warehouse layout and mapping storage locations with 2-D (x, y) coordinates
- Performed the Wave simulation strategy to merge orders into a single picking route, resulting in a remarkable 72% reduction in picking distance compared to greedy Dijkstra's algorithm
- Employed Clustering Simulation strategy to group orders within a walking distance of n meters, resulting in 30% improvement from wave simulation

Comparison of Supervised Learning Algorithms for DDoS Attack Detection [Link]   Dec' 2020 – Mar' 2021

- Conducted a comparative analysis of supervised learning algorithms for DDoS attack detection using a customized dataset created from the CIC-IDS 2017 dataset
- Compared effectiveness of various classifiers - Random Forest, Decision Tree, Adaboost, and Voting Classifier based on precision, recall, and F1 score metrics

Covid-19 Help API [Link]   Nov' 2020 – Dec' 2020

- Engineered a pioneering API in response to global COVID-19 pandemic, aimed at generating SQL queries and visual representations from NLP queries on COVID-19 dataset (MHRD India), resulting in an accuracy rate of 84%
- Executed integration of a versatile functionality within API, automating production of instructive PDF documents expanding upon vital safety measures, incorporating diagrams and graphical depictions to enhance communication of precautions

Virtual dressing room [Link]   Jun' 2019 – Jul' 2019

- Led a team in construction of an innovative augmented reality app using OpenCV, Dlib, numpy, and Tkinter for virtual accessory trials
- Integrated 2D garment exploration and perspectives from different angles and distances in augmented reality application

ACHIEVEMENTS

Star Award at Nextuple: Recognized for improved performance and timely resolution of priority bugs during acceptance testing
Medhavi Scholar: Ranked in top 1.3% among 1.286 million JEE exam takers
National Virtual Imagine Hackathon Second Runner-up: Secured third place in a nationwide virtual coding challenge
University Hackathon Runner-up: Achieved runner-up position in a university-level hackathon competition

SKILLS

Programming Languages: Advanced Java, Python, Groovy, C++, SQL, JavaScript, HTML, CSS
Database: PostgreSQL, Cassandra, ElasticSearch, MongoDB, MySQL
Frameworks: SpringBoot, ReactJS, Flask, .Net, Express
Tools and Techniques: AWS, GCP, Azure, Jmeter, New Relic, Docker, Kafka, Swagger, Pandas, AJAX, Redis, Unix, OpenCV
Organizational Software: Git, Dockins, JIRA, Confluence, Trello