

Rakesh Palle

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EDUCATION

Binghamton University, State University of New York, Thomas J. Watson College of Engineering and Applied Science
Master of Science in Computer Science *Expected December 2024*
Cumulative GPA: 3.97/4.00

Kakatiya University, Warangal, Telangana, India
Bachelor of Technology in Information Technology *May 2021*

PROFESSIONAL EXPERIENCE

Our National Conversation, Software Development Intern | Remote - Los Angeles, CA *February 2024 – May 2024*

- Collaborated on enhancing security and troubleshooting bugs using Git, which improved system performance by 20%
- Optimized APIs to streamline news retrieval based on geolocation and increased efficiency by 15%
- Led the end-to-end Agile software development lifecycle, from gathering requirements to coding and conducting automated testing using Spring Boot
- Communicated technical strategies with the COO and engineering teams to ensure the successful deployment of microservices

Binghamton University, Graduate Teaching Assistant | Binghamton, NY *August 2023 – Present*

- Evaluated projects and assignments using Python auto grader, providing comprehensive feedback to 60 students
- Implemented a streamlined grading process that improved efficiency by 15%, allowing for quicker turnaround on assessments
- Conducted office hours to assist with data structures, algorithms, and object-oriented programming (OOP) concepts
- Provided constructive feedback to students, resulting in a 10% average improvement in project quality and exam scores

Accenture, Associate Software Engineer | Hyderabad, India *September 2021 – December 2022*

- Developed web application features using Java, Spring Boot, JavaScript, and SQL, improving client satisfaction by 15%
- Enhanced development efficiency by refactoring codebases and employing design patterns, achieving a 20% boost
- Refined user experience and functionality of web applications by employing effective troubleshooting resulting in a 30% reduction in reported bugs
- Integrated REST APIs and microservices to support scalability and performance improvements
- Debugged and resolved production issues, reducing downtime by 30% and increasing system reliability

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL, JavaScript, HTML, CSS
Frameworks & Libraries: Spring Boot, Hibernate, React, Node.js, NumPy, Pandas, Matplotlib, Seaborn
Database: Oracle, MySQL, Microsoft SQL, Cassandra
DevOps & Tools: Git, GitHub, Linux, REST APIs, AWS, Azure, Agile, Scrum, Microservices, Kubernetes, Docker, RDBMS,
Relevant Coursework: Data Structures and Algorithms, Operating Systems, Relational Database, Artificial Intelligence, Design Patterns, Cloud Computing, Computer Security, Software Engineering

PROJECT EXPERIENCE

Tree-walk Interpreter | Independent Project *June 2024 – September 2024*

- Developed and engineered a tree-walk interpreter for the Lox language, implementing core features such as lexical analysis, syntax parsing, and expression evaluation
- Integrated advanced programming concepts like control flow, functions, closures, and variable scoping using object-oriented design, ensuring efficient execution and accurate error handling throughout the interpretation process

Simulator for Out of Order Processor, Team lead | Group Project *September 2023 – December 2023*

- Led a team to simulate an out-of-order execution processor, integrating advanced architecture like Load-Store Queue and Branch Target Buffer (BTB)
- Optimized CPU usage, resulting in a 75% increase in instructions per cycle

Retail Business Management System | Independent Project *June 2023 – July 2023*

- Designed and implemented a comprehensive retail database management system using Oracle and PL/SQL, capable of managing over 100 datasets for inventory and sales tracking
- Integrated complex queries to improve data reporting efficiency and functionality

IBE Transformation for Flexible Sharing of Encrypted Data, Developer | Group Project *January 2021 – May 2021*

- Implemented Identity-Based Encryption (IBE) to ensure secure and user-centric data sharing
- Achieved fine-grained access control and simplified key management, ensuring robust data privacy and compliance

ACHIEVEMENTS AND AWARDS

- Awarded Teaching Assistantship with a stipend and full tuition scholarship for three consecutive semesters
- Best Line Follower Robotic Model Developer at KiloTech Annual Workshop 2021