Pradeep Kumar Ramesh

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EDUCATION

Binghamton University, State University of New York, Thomas J. Watson College of Engineering and Applied Science
Master of Science, Computer Science — Expected May 2023
Cumulative GPA: 3.6/4.00 | **Dean's List:** Aug 2021, May 2022 | President Scholarship Grant, Sodexo Employment Scholarship
Anna University, Chennai, India
Bachelor of Engineering, Computer Science — Aug 2017 – May 2021
Cumulative GPA: 3.75/4.00

TECHNICAL SKILLS

Programming Languages: C, C++, Java, Python, JavaScript, Ruby, PHP
Web Technologies: HTML, CSS, React, Angular, Vue.js, Node.js, jQuery, AJAX, Bootstrap
Databases: Oracle, MySQL, SQL Server, MongoDB, PostgreSQL, Redis, SQLite
Cloud Technologies: Amazon Web Services , Microsoft Azure, Google Cloud Platform, Docker, Kubernetes, Apache CloudStack
Tools: Git, Eclipse, Visual Studio Code, PyCharm, JIRA, Confluence, Jenkins, Ansible, Hadoop, Spark, Ruby on Rails, Spring, Apache Kafka
Relevant Coursework: Operating Systems, Database Systems, Design and Analysis of Algorithm, Computer Security, Design Pattern
Certifications: Java Programming , Programming with JS, SQL Programming, Programming with Python, TCS ion Career Edge

RESEARCH EXPERIENCE

Web Scraping | Election Result Prediction | NY, USA — Jan 2023 - Mar 2023
- Collected election-related posts from 4Chan API and conducted sentiment analysis to extract emotions and opinions
- Predicted election results using insights gained from sentiment analysis and visualized predictions through a web-based user interface
- Improved search speed by 2x using Redis caching and demonstrated ability to collect, analyze, and visualize large amounts of data

Database Systems | Student Registration System | NY, USA — Mar 2022 - May 2022
- Designed and developed a student registration system that allows students to register for courses using CRUD operations
- Utilized PL/SQL Procedures, Sequences, and Triggers, and JDBC to enhance the functionality of the system and improve data management, ensuring seamless data flow to the database and designed a user-friendly GUI using Java Swing
- Proven the effectiveness of the student registration system by demonstrating that it is less time-consuming and less complex

Operating System | Chatroom in C | NY, USA — Jan 2022 - May 2022
- Demonstrated strong technical skills, including programming proficiency in C and knowledge of Linux system programming and device driver development by developing a kernel module in C, for implementing a chat room where multiple users can communicate
- Utilized the efficient and effective system for communication as well as synchronization between device drivers in the kernel
- Achieved 100% accuracy in synchronizing the communication between the drivers

Artificial Intelligence | Pacman's Domain | UC Berkeley | NY, USA — Aug 2021 - Dec 2021
- Created different ways to play Pacman's game by applying an array of AI approaches, such as informed state-space search, probabilistic inference, and reinforcement learning to extend the behavioral cloning of the Pacman agent
- Implemented standard machine learning classification algorithms using Naive Bayes, Perceptron, and MIRA models to classify digits
- Increased the efficiency by 30% by implementing probabilistic inference in a hidden Markov model that tracks the movement

Baccalaureate Thesis: AI-Based Price Negotiating Chat-Bot System | Chennai, India — Jan 2021 - May 2021
- Created Developed an AI-based price negotiating chat-bot system using NLP and ML techniques
- Trained the ML model on a large dataset of product prices and customer negotiation conversations
- Achieved a high success rate in negotiating prices with customers, generating more sales to the vendors
- Presented the thesis paper at an annual IEEE conference in Chennai, India (PITTC 2021). The conference paper has been published in the International Research Journal of Engineering and Technology (IRJET), with the Paper ID: FTP8032927

PROFESSIONAL EXPERIENCE

Graduate Student Assistant | Binghamton University (SUNY) | Binghamton, NY — Aug 2021 - Jan 2023
- Assisted professors in undergraduate courses, conducted AI/ML research, and served as a Tutor for a graduate-level course
- Coordinated events and workshops for the computer science community, and collaborated on software development projects
- Developed problem-solving, communication, and leadership skills, while gaining hands-on experience in software development and data analysis

Software Engineer Intern | Infoziant Systems Private Limited | Chennai, India — Dec 2020 - May 2021
- Collaborated on a web-based inventory management system using ReactJS and Node.js for a retail client
- Optimized an Android app's performance by implementing caching mechanisms and debugging code using Java
- Developed a Python/Django-based CRM system for a financial services client and RESTful APIs
- Contributed to a healthcare client's chatbot project using TensorFlow and Python for natural language processing

LEADERSHIP EXPERIENCE

Chief of Elections Officer | Graduate Student Organization (GSO) | Binghamton, NY — May 2022 - Present
- Chaired the management board and the election committee and validate that the elections of the University are held as per the bylaws
- Organized orientation for candidates on election policies along with preparing electronic voting platforms for referenda and elections

ACHIEVEMENTS AND AWARDS

- Awarded the 'Best Project Award' for the 'AI Based E-commerce Chat-Bot System' in Project Expo 2021 conducted by Anna University
- The winner of the "Standout Award" for exceptional contributions to project delivery at the Anna University Project Expo 2020
- Awarded the 'Best Project Award' for the 'IoT Based Smart Environmental Monitoring Robot' in Project Expo 2018 conducted by AU