

# 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

**Database Systems | Student Registration System | Binghamton, NY**

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 | Binghamton, NY**

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 | Binghamton, NY**

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

- Developed and implemented a chatbot system for the analysis of customer negotiation behavior on an e-commerce website
- Created and trained chatbot using python and ChatterBot library, the bot is able to negotiate the price with the buyers without any delay
- 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 Assistant | University Tutorial Services | Binghamton, NY**

Aug 2021 - May 2022

- Demonstrated excellent collaboration skills by working closely with a Professor to identify students needs and develop coursework, curriculum, and subject material for undergraduate and master-level courses
- Made a significant contribution to the success of the University Tutorial Services by providing expert guidance to students in the field of Artificial Intelligence by implementing innovative teaching methods and techniques
- Skilled in training and fine-tuning deep learning models for various applications, such as image classification, speech recognition, and natural language processing using popular libraries and frameworks such as TensorFlow, Keras

**Research Intern | Infoziant Systems Private Limited | Chennai, India**

Dec 2020 - May 2021

- Developed an IoT automation module, IoT Gas Detection System of an MQ6 sensor module by using Arduino IDE and AT mega 328 microcontroller along with communication protocol such as the MQTT protocol
- Monitored the gas concentration data on the serial monitor and on the remote server and implemented an alert system that notifies if the gas concentration exceeds a certain threshold and increased the efficiency of existing automation process by 15%
- Experienced in programming and configuring communication protocols such as MQTT, HTTP, and CoAP to facilitate communication between IoT devices and servers for monitoring and analysis
- Proven ability to troubleshoot technical issues and identify root causes of problems to resolve them in a timely manner

## 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