

# Karan Ashokkumar Pardasani

📍 New Brunswick, NJ

☎ 469-449-2175

✉ [karan.pardasani@rutgers.edu](mailto:karan.pardasani@rutgers.edu)

in [Linkedin](#)

🐙 [Github](#)

## EDUCATION

**Rutgers University, New Brunswick, New Jersey**

**Sept 2021-May 2023**

*Master of Science in Computer Science - GPA: 4.0/4.0*

*Courses: Data Structures and Algorithms, Machine Learning, Massive Data Mining, AI for Visual Computing, Introduction to AI*

**DA-IICT, Gandhinagar, India**

**Aug 2016-Aug 2020**

*Bachelor of Technology in Information and Communication Technology – GPA: 9.07/10.0*

*Courses: Data Structures and Algorithms, Object-Oriented Programming, Operating System, Database Management Systems, Operating System, Computer Networks*

## RELEVANT WORK EXPERIENCE

**IT Research Support Specialist, Data Science, School of Communication and Information, Rutgers University** **Jan 2022 - Present**

- Responsible for collecting data using **Python** from applications like Reddit, Twitter, and Volunteer Science. Also responsible for cleaning and preparing the data to use in research.
- Responsible for implementing the workflow in KNIME, **Python, and JavaScript** for algorithms like Sentiment Analysis. This allows the users with the non-coding background to efficiently execute the algorithms for their research and draw inferences.

**Software Engineer, Monocept – Hyderabad, India**

**Nov 2020-May 2021**

- Built dynamic web components in **React.js and Redux** to display unique information based on the user's location.
- Built the online text editor using **Draft.js** to write books. Sixty books were published using the platform.
- Designed and implemented database schema tables in **PostgreSQL** and developed REST APIs in **Python Django** to extract data.
- Fixed bugs and optimized the **REST APIs in Python Django** and database design in **PostgreSQL**, leading to an increase of 50% of publishing books per day.
- Implemented REST APIs using third-party **TextLocal API**, in **Python Django and PostgreSQL**, to process the payments by users.

**Software Engineer Intern, Tata Consultancy Services – Gandhinagar, India**

**Jan 2020-May 2020**

- Configured ERP models for HR Application in Service Now. The modules were presented to the clients as a demo of the benefits of using the Service Now Application, which landed the company two more projects in the future.
- Used **Angular JS, HTML, CSS, Bootstrap** to configure pages of Service Now modules. Implemented custom widgets that send employee information entered by the HR to Service Now Tables.

## PROJECTS

**Voyage Into the Unknown | Skills Used: Robot Path Planning, Python, Pandas, Numpy, Optimization, Github**

- Implemented and analyzed the A-star algorithm for a robot to find a path in a grid filled with obstacles at an unknown location.
- Designed and implemented a variant of the A-star algorithm for a robot to follow and catch an unknown target that can move randomly in the maze. Also, the maze was filled with obstacles at unknown locations.

**Dynamic Matchmaking Machine | Skills Used: Artificial Neural Network, Python, PyTorch**

- Combined the two Short Term Memory and Long-Term Memory models described in the [research paper](#) to make a better prediction using the MNIST dataset, which led to an increase in accuracy to 96% on the testing dataset.
- Also tested the new model for its ability to retain the old training when training the model on the new data. Upon the training on new data, the accuracy of old test data was reduced to 89%.

**Optimization of Loss Function for Prediction of SEC | Skills Used: Machine Learning, Python, TensorFlow, Github**

- Designed an Artificial Neural Network in TensorFlow to predict SEC using features like rain depth, NDVI, and DEM values.
- The MSE Error for our prediction model was 0.029, and our work was published in the [International Conference of AMLTA, 2020](#).

**Hotel Management System | Skills Used: Python, PostgreSQL, Pandas, Numpy, HTML, CSS**

- Designed and implemented a database system to manage the details of employees, bookings of the guests, customers at the restaurants, etc.
- A guest can make a room reservation, and the employee will confirm the reservation based on availability.
- Built a UI using HTML, CSS, and JavaScript for customers and administration to use the Database system

## SKILLS

### Programming Languages

Java, Core Java, React.js, Redux, Python, C, C++, SQL, JavaScript, HTML5, CSS, Bootstrap, RESTful Webservices, Node.js, MATLAB, AngularJS

### Frameworks

Python Django, Django Rest Framework, Redis

### Databases

MongoDB, MySQL, PostgreSQL, AWS S3, NoSQL Database

### Other

Amazon EC2, Github, Visual Studio, Object-Oriented Programming, Postman