Aditya Karlekar

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SKILLS

- **Languages and Technologies**: C, C++, Java, Python, JavaScript, HTML5, CSS3, Bootstrap, ReactJS
- **Database and Client/Server Technologies**: MySQL, T-SQL
- **Deep Learning Libraries**: TensorFlow, Keras, Pytorch
- **Machine Learning Libraries**: Numpy, Scipy, Sci-kit Learn, Pandas
- **Operating Systems**: Unix, Linux, Windows
- **Cloud Platforms**: Microsoft Azure
- **Version Control:** Git, Jira

PROJECTS

Twitter Simulator **Nov 2019 – Dec 2019**.

- Developed a twitter clone replicating all the functionalities of real twitter engine and simulated real human interactions.
- Used Elixir Phoenix framework for Front-End features and Elixir's GenServer module for Back-End logic.
- In simulation mode, predefined users replicated social interactions while the client mode allowed the user to create an id and perform operations like sending tweets, subscribe, retweet, query hashtags, and search for mentions.

Game Playing Intelligent Agent **Aug 2018 – Sep 2018**

- Developed an agent to play a game named 'isolation' and compared its efficacy with other AI agents.
- Implemented Monte Carlo Tree Search to create an adversarial game agent.
- Evaluated the agent's effectiveness against other search methods like minimax optimization, alpha-beta search, greedy agent, and random search.

Micro-mouse Competition **Apr 2018 – Jun 2018**

- The project was inspired by the Micro-mouse competition, and the goal was to make the mouse find an optimal path from one corner to the center of the maze.
- Implemented A* algorithm and Dynamic Programming to find the optimal route.

Smart Cab **Mar 2018 – Apr 2018**

- Applied reinforcement learning techniques for a self-driving agent in a simplified world to aid it effectively reach its destination in the allotted time.

WORK EXPERIENCE

Research Assistant, Indian Institute of Information Technology, Jabalpur, India **May 2018 – Aug 2019**

- Conducted original research and published findings in reputed peer-reviewed journals.
- Developed novel solutions for pertinent problems in the image processing domain.
- Designed novel clustering algorithms using Non-Linear distances and validated their efficacy.
- Implemented Deep Learning models for classifying diseases in Soybean plant.

Web Developer, Learning Zapper, Bangalore **Mar 2018 – Apr 2018**

- Worked as part of the Frontend Development team and created responsive Web applications.
- Developed Landing Page and worked on Dashboard elements with HTML5, JavaScript, jQuery, ReactJS and Bootstrap.
- Designed User Login System and performed on the fly form validation.

Web Developer Intern, 365Doctor.in, Bangalore **Nov 2017 – Jan 2018**

- Developed the query management system for handling customers' queries.
- Designed the Frontend and Backend using technologies like HTML, CSS, JavaScript, and PHP.
- Designed and implemented the database using PostgresSQL.

EDUCATION

MS in Computer Science **Aug 2021**

University of Florida, Gainesville, GPA: 3.77/4.00

BE in Computer Science and Engineering (*Top 5% of class of 65*) **Jun 2017**

Rajiv Gandhi Technical University, Bhopal, India GPA - 7.91/10.00

PUBLICATIONS

- Fuzzy K Means with Non-Linear S-distance, April 18, 2019, IEEE Access.
- Fuzzy C-Means Clustering using Jeffreys-divergence based Similarity Measure, December 14, 2019, Journal of Applied Soft Computing: Elsevier