DARSH SHALIN SELARKA

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EDUCATION

Bachelor of Science, Computer Science | Specialization: Data Science   *Dec 2020*
Indiana University, Bloomington | Luddy School of Informatics, Computing, and Engineering
Relevant Coursework, Data Structures, Object-Oriented Programming, Artificial Intelligence, Data Analysis & Mining, Analysis of Algorithms, Discrete Mathematics, Theory of Computing, Calculus, Database Management Systems

SKILLS

Programming/Databases: Java, Python, C, C#, C++, HTML5, CSS3, JavaScript, SQL (MySQL, SQLite), NoSQL (MongoDB), PHP, R, Swift
Frameworks/Libraries: Django, React, Spring, Codeigniter, Flask, OpenCV, webRTC, Numpy, NLTK, Tkinter, pandas, Selenium, JUnit, Express, Matplotlib
Software Engineering: Data Structures, Object-Oriented Programming, REST APIs, MVC Pattern, UNIX/Linux, Git, UML Diagrams, Unit Testing, Database Management, Android/iOS Development

EXPERIENCE

Research Assistant, Luddy SICE, IU | Mentor: Mr Shujon Naha (Bloomington, IN)   *Jan 2020 - May 2020*
- Built an image dataset for the project's model from over 100 videos which aimed to understand the actions of different quadruped animals
- Assisted in annotating 8000 images of 9 different quadruped animals using LabelMe into JSON format
- Effectively explored Convolutional Neural Networks to classify the actions of different quadruped animals using the labeled data

Software Engineer Intern, Trimax IT Infrastructure & Services Limited (Mumbai, India)   *Feb 2018 - Apr 2018*
- Integrated Paytm Payment API into the project to process and simplify online payments using UPI gateway
- Implemented in Spring Boot framework and integrated the RESTful API, Initiate Transaction API (POST) to get transaction tokens which enabled further processing of the UPI payment
- Devised a script to automate testing using Java and Selenium libraries

Software Engineer Intern, ThinkJain (Mumbai, India)   *Mar 2017 - Jun 2017*
- Utilized Django framework (Python) and employed MongoDB to design a server application and React as the client interface for an online job portal
- Incorporated features like filtering jobs based on user preference and session management using AuthenicationMiddleware component
- The job portal successfully managed to register more than 100 people within the first month of its launch

PROJECTS

Expense Manager
- Developed a full-stack expense manager using the MERN stack - utilized React on the frontend, Express as the backend server and MongoDB as the database for the application

Stock Market backend REST API
- Implemented a stock market REST API using Django Rest Framework with the ability to retrieve data about a stock using GET request and update data on the server-side using POST request and employed Heroku server to deploy it

Covid-19 Chatbot
- Created a retrieval based chatbot in Python to educate the user about the Coronavirus pandemic by answering frequently asked questions using Natural Language Processing (NLTK), Keras, and by utilizing a special Recurrent Neural Network LSTM (Long ShortTerm Memory) for a response, and the Tkinter library to build the GUI

Ultimate Tic Tac Toe AI
- Developed a 9x9 version of the popular Tic Tac Toe game using Python and programmed AI agents for it by implementing the Monte-Carlo algorithm, and Minimax algorithm along with Alpha-Beta Pruning

Survival RPG
- Implemented a full 2D top-down survival role-playing game in Unity by incorporating Object-Oriented methodologies in C# and pathfinding algorithm (Manhattan Distance) for the AI agent

LEADERSHIP AND EXTRACURRICULAR EXPERIENCE

- JPMorgan Chase and Co. (Virtual Software Engineering Internship Experience) : May 2020 - May 2020
- Serve IT Clinic, Indiana University (Teach IT Intern) : Jan 2020 - May 2020
- International Sports Club, Indiana University (Vice President) : Aug 2019 - Dec 2020
- Computer Society of India, KJSCE (Jt. Technical Head) : Aug 2015 - Aug 2017