

DARSH SHALIN SELARKA

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EDUCATION

Indiana University, Bloomington, IN

Dec 2020

Bachelor of Science in Computer Science, Specialization: Data Science

Relevant Coursework: Data Structures, Object-Oriented Programming, Intro to Artificial Intelligence, Data Analysis & Mining, Analysis of Algorithms, Discrete Mathematics, Theory of Computing, Multivariable Calculus, Database Management Systems, Functional Programming

TECHNICAL SKILLS

Programming Languages: Java, Python, C/ C++, C#, JavaScript, PHP, MySQL, PostgreSQL, R, git, Swift, MariaDB

Frameworks/Libraries: Django, ReactJS, Struts, Codeigniter, Flask, MeteorJS, Tensorflow, Numpy, NLTK, Tkinter, pandas, AWS

Software Engineering: Data Structures, Algorithms, Object-Oriented Programming, REST APIs, Unit Testing, SDLC, VCS, GraphQL

Tools: HTML5, CSS3, Visual Studio Code, Linux, IntelliJ, Android Studio, Unity3d, XCode, RStudio, Jupyter Notebook, Anaconda, Microsoft Access, Apache Tomcat, MySQL Workbench, XAMPP, phpMyAdmin

WORK EXPERIENCE

UROC, Indiana University, Bloomington, IN, United States (*Research Assistant*)

Jan 2020 - Present

- Build a dataset to understand quadruped animal actions from more than 100 videos
- Annotate 8000 images in total of 9 different quadruped animals using LabelMe into JSON format
- Incorporate Computer Vision algorithms like Convolutional Neural Networks (CNN) to classify images using PyTorch

Serve IT, Indiana University, Bloomington, IN, United States (*Teach IT Intern*)

Jan 2020 - Present

- Enhance technical communication and presentation skills by presenting fundamental concepts of Computer Science in front of a classroom of over 30 students on a weekly basis
- Foster student learning through hands-on activities and improve overall engagement at a local non-profit organization

Trimax IT Infrastructure & Services Limited, Mumbai, India (*Software Engineering Intern*)

Feb 2018 - April 2018

- Developed a training project to integrate Paytm API with web application to process online payments using UPI gateway
- Completed training project with a team of 10 by utilizing Struts MVC and JSP to create a web application
- Acquired functional overview of Java and various phases of Software Development Life Cycle

ThinkJain, Mumbai, India (*Python/Django Developer Intern*)

Mar 2017 - June 2017

- Utilized Python, Django to design a server application and client interface (A Job Portal for the underprivileged)
- Collaborated with a team to design the MVC pattern using UML diagrams for the application
- Parsed XML documents using Python scripts and loaded them into MySQL tables
- Handled development of front-end user interface with help of HTML5, CSS, and JavaScript

RIIDL Organization, Mumbai, India (*IoT Architect Intern*)

Nov 2016 - Jan 2017

- Developed an Internet of Things based Street light monitoring system along with LDR sensors for my university to save energy
- Implemented PHP to handle the backend development and developed a CRUD utility using the Codeigniter framework
- Slashed electricity costs of the test area by nearly 20% from executing the project over a period of 2 months
- Acquired hands-on experience with REST APIs, MySQL, and formulated a strategy to drive adoption of AWS

PROJECTS

- **COVID-19 Chatbot** - Programmed a Chatbot in Python to educate the user about the Coronavirus pandemic by answering frequently asked questions using Natural Language Processing (NLTK) by utilizing a deep learning algorithm called LSTM (Long Short Term Memory) for a response and the Tkinter library to build the GUI (Mar 2020)
- **Ultimate Tic Tac Toe** - Implemented a full-stack 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 (Oct - Dec 2019)
- **Survival RPG** - Developed a full 2D top-down survival role playing game in Unity which incorporated Object-Oriented methodologies in C# and pathfinding algorithm (Manhattan Distance) for the AI agent (Oct - Dec 2019)
- **Personal Portfolio** - Designed and developed personal portfolio using the ReactJS framework along with HTML5, CSS3 (Nov 2019)
- **House Price Detection** - Predicted House Price on the Zillow house price dataset from Kaggle with an accuracy of 91% by using the TensorFlow machine learning framework and NumPy, Matplotlib (Sept 2019)
- **Gabb** - Developed a real-time messaging application for Android using the Firebase platform (Oct 2017)

LEADERSHIP & EXTRACURRICULAR EXPERIENCE

International Sports Club, Indiana University, Bloomington, IN, United States (*Vice President*)

Aug 2019 - Present

- Organized and managed the Futsal World Cup 2019 and various other intramural competitions for the global community comprising around 100+ students and faculty at Indiana University

IU Event Services, Indiana University, sBloomington, IN, United States (*Part-Time Usher*)

Nov 2018 - Present

- Assist in the management of events with more than 50,000 people on a weekly basis, acquiring problem-solving and organizational skills in real-time

Computer Society of India (CSI) Council, Mumbai, India (*Jt. Technical Head*)

Aug 2015 - Aug 2017

- Convened and presented workshops on Machine Learning, Android Development, and Cordova Development for a footfall of over 200 people for each workshop