DARSH SHALIN SELARKA

dselarka@iu.edu • (812) 361 8109 • linkedin.com/in/darshselarka • github.com/darshselarka1497 • pages.iu.edu/~dselarka

EDUCATION

Indiana University, Bloomington, IN   **Dec 2020**
B.S. **Computer Science |** *Specialization* **Data Science |** *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, Multivariable Calculus, Database Management Systems, Functional Programming

TECHNICAL SKILLS

Programming:	Java, Python, C, C#, C++, HTML5, CSS3, JavaScript, SQL (MySQL, SQLite), NoSQL (PostgreSQL), PHP, R, Swift
Frameworks/Libraries:	Django, React, Struts, Codeigniter, Flask, Tensorflow, PyTorch, Numpy, NLTK, Tkinter, pandas, GraphQL
Software Engineering:	Data Structures & Algorithms, Object-Oriented Programming, REST APIs, Unit Testing, SDLC, VCS
Tools:	Visual Studio Code, Linux, IntelliJ, Android Studio, Unity3d, XCode, RStudio, Jupyter Notebook, Anaconda, Apache Tomcat, MySQL Workbench, XAMPP, phpMyAdmin, Cloudflare Workers, heroku, git

WORK EXPERIENCE

Luddy SICE (UROC), Indiana University, Bloomington, IN *(Research Assistant)*   **Jan 2020 - May 2020**
- Built a dataset to understand quadruped animal actions from more than 100 videos
- Assisted in annotating 8000 images of 9 different quadruped animals using LabelMe into JSON format
- Explored Convolutional Neural Networks (CNN) to classify the images to different animal groups

Serve IT, Indiana University, Bloomington, IN *(Teach IT Intern)*   **Jan 2020 - May 2020**
- Enhanced 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
- Fostered student learning through hands-on activities and improved overall engagement at Girls Inc, a local non-profit organization

Trimax IT Infrastructure & Services Limited, Mumbai, India *(Software Engineer Intern)*   **Feb 2018 - April 2018**
- Developed a project to simplify payments by integrating Paytm API with webapp to process online payments using UPI gateway
- Completed the training project with a team of 10 by utilizing Struts framework, Servlets, and MySQL to create a web application
- Acquired functional overview of Java and various phases of Software Development Life Cycle

ThinkJain, Mumbai, India *(Software Engineer Intern)*   **Mar 2017 - June 2017**
- Utilized Python, Django to design a server application and client interface (A Job Portal)
- Collaborated with a team to design the MVC pattern using UML diagrams for the application
- Successfully incorporated features such as filtering jobs based on user preference and session management using middleware
- Handled development of front-end user interface with help of HTML5, CSS, and JavaScript

RIIDL Organization, Mumbai, India *(Software Engineer 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; made a CRUD utility using the Codeigniter framework and MySQL database
- Slashed electricity cost 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

- **Coronavirus Global Tracker -** Developed a webapp to track total number of active cases, recovered cases and deaths per country in real-time. Fetched data from an API and implemented it using ReactJS alongwith Chart.js for data visualization (*May 2020*)
- **Covid-19 Chatbot -** Developed a chatbot in Python to educate the user about the Coronavirus pandemic by answering frequently asked questions using Natural Language Processing (NLTK) by utilizing the deep learning algorithm LSTM (Long Short-Term Memory) for a response and the Tkinter library to build the GUI *(Mar 2020)*
- **Ultimate Tic Tac Toe -** Developed a 9x9 version of the popular Tic Tac Toe game using python and programmed AI agent for it by implementing the Monte-Carlo algorithm, and Minimax algorithm along with Alpha-Beta Pruning *(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 *(Dec 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 Android Studio and 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, Bloomington, 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