

# DARSH SHALIN SELARKA

[dselarka@iu.edu](mailto:dselarka@iu.edu) • (812) 361 8109 • [linkedin.com/in/darshselarka](https://www.linkedin.com/in/darshselarka) • [github.com/darshselarka1497](https://github.com/darshselarka1497) • [pages.iu.edu/~dselarka](https://pages.iu.edu/~dselarka)

## 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, MariaDB, SQLite, git, R, swift

**Frameworks/Libraries :** Django, ReactJS, 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 :** HTML5, CSS3, Visual Studio Code, Linux, IntelliJ, Android Studio, Unity3d, XCode, RStudio, Jupyter Notebook, Anaconda, Microsoft Access, Apache Tomcat, MySQL Workbench, XAMPP, phpMyAdmin, Cloudflare Workers

## 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** - 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 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, 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