

# DARSH SHALIN SELARKA

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## EDUCATION

**Indiana University**, Bloomington, IN **Aug. 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

## WORK EXPERIENCE

**UROC, Indiana University, Bloomington, IN, United States** (*Undergraduate Research Assistant*) **Jan. 2020-Present**

- Build a dataset to understand quadruped animal actions from videos
- Annotate around 8000 images of quadruped animals using LabelMe into JSON format
- Incorporate Computer Vision algorithms to understand images using Python 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
- Foster student learning through hands-on activities and improve overall engagement

**Trimax IT Infrastructure & Services Limited, Mumbai, India** (*Software Engineering Intern*) **Feb. 2018-April. 2018**

- Implemented a training project to integrate Paytm API with web application to process online payment from the customer using UPI
- Completed training project utilizing Struts MVC and JSP to create a web application
- Acquired functional overview of Java and maintained documentation

**ThinkJain, Mumbai, India** (*Python/Django Developer Intern*) **March. 2017-June. 2017**

- Utilized Python, Django to design server application and client interface (Job Portal)
- Parsed XML documents using Python scripts and loaded into the database
- Handled development of front-end user interface with help of HTML5, CSS, and JavaScript
- Collaborated with a team to manage and troubleshoot the project

**RIIDL Organization, Mumbai, India** (*IoT Architect Intern*) **Nov. 2016-Jan. 2017**

- Developed an Internet of Things based Street light monitoring system for my university to save energy
- Implemented MVC Framework (CodeIgniter) along with LDR sensors
- 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 and PHP and formulated a strategy to drive adoption of AWS

## PROJECTS

- **Ultimate Tic Tac Toe** - Built an AI agent for a 9x9 version of the popular Tic Tac Toe game using python by implementing Monte-Carlo Algorithm, Alpha-Beta Pruning (Minimax algorithm) as part of CSCI B351 class (*Oct-Dec. 2019*)
- **Survival RPG** - Built a 2D game in Unity which incorporated Object-Oriented methodologies in C# and path finding algorithm (Manhattan Distance) for the AI as part of CSCI C292 class (*Oct-Dec. 2019*)
- **House Price Detection** - Predicted House Price with an accuracy of 91% by using the TensorFlow machine learning framework and NumPy, Matplotlib (*Sept. 2019*)
- **Personal Portfolio** - Developed my Personal Portfolio using the ReactJS framework along with HTML5, CSS3 (*Nov. 2019-Present*)
- **Gabb** - A real-time messaging application which is implemented on the Android platform 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 Futsal World Cup 2019 and intramural competitions for the global community 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 workshops on Machine Learning, Android Development, and Cordova Development for a footfall of over 300 people for each workshop

## TECHNICAL SKILLS

**Programming Languages:** Java, Python, C/ C++, C#, HTML, CSS, JavaScript, PHP, SQL, MySQL, R, VCS (git), Swift

**Frameworks:** Django, Struts, Bootstrap, Codeigniter, ReactJS, Tensorflow

**Software Engineering:** Data Structures, Algorithms, Object-Oriented Programming, REST APIs, Unit Testing (JUnit)

**Miscellaneous:** Microsoft Visual Studio Code, IntelliJ, Android Studio, Unity3d, XCode, RStudio, Sublime Text, Jupyter Notebook, Anaconda, Microsoft Access, PostgreSQL, MySQL Workbench, XAMPP, phpMyAdmin, MS Office, Adobe Photoshop (Astrophotography)