

## EDUCATION

### Iowa State University PhD. in Computer Science

01/2017 – Present

Ames, Iowa

### Birsa Institute of Technology (B. I. T) B. Tech in Computer Science and Engineering

08/2011 – 07/2015

Dhanbad, India

## WORK EXPERIENCE

### Graduate Research Assistant Iowa State University

05/2018 – Present

Ames, Iowa

- Using Deep Learning, ROS, Caffe to build a UAV (Unmanned Autonomous Vehicle) and develop various algorithms.

### Graduate Teaching Assistant Iowa State University

01/2017 – 2019

Ames, Iowa

- Teaching Assistant (TA) for COMS 104 (Introduction to programming using Python). Responsible for taking lab sessions and grading assignments.
- TA for COMS 106 (Introduction to programming using HTML5, CSS, PHP, SQL, JQuery, JavaScript). Responsible for helping students understanding concepts, clearing their doubts and grading assignments.

### Business Analyst EXL (Inductis) India Pvt. Ltd.

02/2016 – 12/2016

Gurgaon, India

- Utilized applications like SAS to identify trends and relationships between different pieces of data, draw appropriate conclusions and translated analytical findings.
- Created and worked on various reporting frameworks (Microsoft Excel, Tableau) that involved customer segmentation and clustering exercises for customers.

### Software Developer Intern MS Soft Solutions

06/2013 – 08/2013

New Delhi, India

- Worked on development of the front end and back end involving coding in ASP.Net environment.
- Front end involved coding in Visual Studio and backend connectivity was implemented using SQL Server 2008 R2.

## PERSONAL PROJECTS

### Real-time Volumetric Analysis (01/2019 – Present)

- Using Deep Learning techniques to detect, track and determine the volume of an object in real-time using a drone designed and developed by us. Languages/ tools: Python, ROS, OpenCV

### 3-D Visualization using vision cameras (03/2019 – Present)

- Using multiple camera systems and sensors, developed a technique to impart intelligence to multiple farm equipment and integrated them with the machine protocols and triggers. Languages/tools: Python, OpenCV, Java, Javascript

### Trail Detection using UAV (06/2018 – 11/2018)

- Designed and developed algorithms to detect forest trails using a UAV. Languages/tools: Python, ROS, Keras, Caffe, TensorRT

### ShopEasy (Android app for elderly) (08/2017 – 12/2017)

- Created an android app that provides in-store navigation. The app allows users to create a shopping list by directly fetching data from the store's database and allows them to navigate through the shortest path on the basis of their shopping list.

### Guide-Me (Android app for the blind) (01/2015 – 05/2015)

- Built an android app that made use of physical buttons of the phone, to share location over message, send SMS, make calls, send Email, read mails, capture Image. Integrated with voice to read out each option to the user.

## PUBLICATIONS

A Case Study on Optimal Deep Learning Model for UAVs  
Chandan Kumar, S Vaddi, A Sarkar and Ali Jannesari  
[Submitted], 7th International Conference on Learning Representations

Efficient Object Detection Model for Real-Time UAV Applications, Subrahmanyam Vaddi, Chandan Kumar and Ali Jannesari [Submitted]

Attended Seventh Summer School on Formal Techniques, organized by SRI International, Menlo College, Atherton, California

## HONOR AWARDS

PyTorch Scholarship Challenge from Facebook  
*Udacity*

Awarded "Rising Star of the Company" within 6 months of joining, for significant contribution to projects  
*EXL (Inductis) India Pvt. Ltd*

President of Computer-Science GSO  
*Iowa State University*

## TECHNICAL SKILLS

### Languages, Tools & Technologies:

Python, JAVA, R, C/C++, C#, SAS, PROMELA, HTML/HTML5, Javascript, SQL/SQLite, Oracle, MS- SQL Server, TensorFlow, Keras, OpenCV, OpenMP, Git, LaTeX, CSS, Eclipse IDE, Android Studio, Jenkins, Z3, Agilefant, SoapUI, Tableau, Microsoft Visual Studio, Microsoft Word, Microsoft Excel