
Education

MS in Computer Science at Oregon State University, Corvallis	Fall 2019 – Spring 2021(expected)
<ul style="list-style-type: none">• Advisor: <i>Dr Stefan Lee</i>• Research interest: Computer Vision, Machine learning, NLP.	
BE in Computer science Sir M Visvesvaraya Institute of Technology (First Class)	2012-2016

Work Experience

Graduate Research Assistant Oregon State University, Corvallis	Jan 2020 - Present
<ul style="list-style-type: none">• Contributor to <i>Machine common sense</i> project funded by <i>DARPA</i>.• Develop and evaluate ML models for object tracking.	
Graduate Teaching Assistant Oregon State University, Corvallis	Sept 2019 - Dec 2019
<ul style="list-style-type: none">• Courses: CS 340 - Intro to databases, CS 290 - Web Development	
Data Scientist Société Générale, Bangalore	Oct 2017- June 2019
<ul style="list-style-type: none">• Developed and implemented a Bi-LSTM based NER to extract context-based financial data from scanned documents.• Co-developed and implemented a CNN based project to classify scanned document types using deep learning for automated KYC remediation.	
Software Engineer ABB R&D Robotics, Bangalore	July 2016-Sept 2017
<ul style="list-style-type: none">• Developed neural network in C for torque ripple compensation in harmonic gears for industrial robots.• Implemented CNN based model to detect calibration markers on robots and compute angle between them. Video• Developed an ML model to estimate the 3D position of end effector (ABB IRB 140) using dual 2D cameras. Video	
Developer Google Summer of Code Python Software Foundation(PSF)	Apr 2016 -Aug 2016
<ul style="list-style-type: none">• Integrated Unity scene with existing pyKinect2 to emulate skeletal movements tracked by Kinect sensor. Project	
Developer Google Summer of Code Python Software Foundation(PSF)	Apr 2015 –Aug 2015
<ul style="list-style-type: none">• Developed and deployed a planning and scheduling system for rovers using Europa-PSO(NASA). Project	
Developer Google Summer of Code (GSoC - April–August 2014) Italian Mars Society	Apr 2014 –Aug 2014
<ul style="list-style-type: none">• Developed a voice recognition interface on Raspberry pi to interact with mobile rovers. Video• Performed final testing and integration at Curno, Italy.	
Intern Cardekho.com	Jan 2015
<ul style="list-style-type: none">• Interned at a start-up to develop a third-party carousel ad unit using the Google DFP and Revive Ad Server.• Co-developed and integrated an analytics dashboard with UI to monitor ad impressions and clicks.	

Projects

Hand detection and tracking

- Deployed an ML model based on Faster-RCNN to detect hands and further working on fine tuning the model.
- Implemented tracking algorithm to track detected hands in a video frame.

Job recommendation engine.

- Co-designed an algorithm to calculate similarity index using Euclidean distance of two skill sets and then ranking them using naïve Bayes algorithm.
- Developed a backend system for a start-up to recommend jobs based on the above algorithm. Publication [2]

ROS based obstacle avoidance system for industrial robots(ABB YuMi-IRB14000).

- Co-developed and maintained an obstacle avoidance system using a Kinect sensor. Video

Human-Robot interaction using HoloLens.

Developed an interactive HoloLens application to control any ABB robot using gestures. Video

Handwritten Signature Recognition.

Research project on analysis of handwritten signatures which utilizes Java for feature extraction from images of signatures and uses a python based ANN for classifying signatures. Publication [1][3][4][5]

Certification

Deep Learning Specialization - FDGVT46FCK6B-Andrew Ng (Coursera/Deeplearning.ai)

Computer Skills

OS - Linux, macOS, Windows

Other Tools - JIRA, RabbitMQ

VCS - Git, Hg

Languages - Python(proficient) C, C++, Swift, C#(familiar)

ML libraries -Pytorch, Tensorflow

Talks

Delivered a talk to share my experiences about Google summer of code to college students at Google, Bangalore

Publications

- Choudhary, Savita, Siddanth Kaul, Shridhar Mishra, and J. B. Arun. "Signature verification using Java-Python for small computational devices." In Advance Computing Conference (IACC), 2015 IEEE International, pp. 655-659. IEEE, 2015.
- S. Choudhary, S. Koul, S. Mishra, A. Thakur and R. Jain, "Collaborative job prediction based on Naïve Bayes Classifier using python platform." 2016 International Conference on Computation System and Information Technology for Sustainable Solutions (CSITSS), Bengaluru, India, 2016, pp. 302-306.
doi: 10.1109/CSITSS.2016.7779375
- Choudhary, Savita, Sridhar Mishra, Siddanth Kaul, and J. B. Arun. "Design of Handwritten Signature Verification Using Java-Python Platform." In Emerging Research in Computing, Information, Communication and Applications, pp. 75-86. Springer Singapore, 2016.
 - Best Paper Award in this conference.
- Choudhary, Savita, Siddanth Kaul, Shridhar Mishra, and J. B. Arun "Handwritten Signature Verification using Soft Computational Model on Java Python Platform." In Information Science & Technology for Sustainability & Innovation(ICISTSI),2015 Scopus, DOI-10.3850/978-981-09-4426-0152
- Choudhary, Savita, Siddanth Kaul, Shridhar Mishra, and J. B. Arun "Open Source Based Development Platform for Handwritten Signature Verification" In Conference on Communication and Computing,2015, McGraw-Hill, ISBN-978-93-8580-73-5. Mc-Graw Hill-2015.