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**CHIRAV DAVE**
Tempe,AZ

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## EDUCATION

**Masters, Computer Science, Arizona State University | GPA 3.94** *August 2017 - Present*

**Bachelor of Technology, Computer Science & Engineering, India | GPA 8.67/10** *July 2012 - July 2016*

## TECHNICAL SKILLS & COURSEWORK

**Languages:** Python, Java, C, C++, SQL, Html, JavaScript
**Databases:** MySQL, SQLite
**ML Technologies:** Numpy, Pandas, Scikit-learn, Matplotlib, Tensorfow
**Coursework:** Artificial Intelligence, Statistical Machine Learning, Perception in Robotics, Intelligent & Assistive Robotics

## WORK EXPERIENCE

**Software Engineering Intern | Rockwell Collins | Irvine, California** *May 2018 - August 2018*

- Developed an android application for IFE which can auto-detect cast enabled monitors and play DRM protected media on it from personal devices without any internet connection.
  **Technology Stack:** Python, Java, Electron, Raspberry Pi, Android Studio

**Programmer Analyst Trainee | Cognizant Technology Solutions | Kolkata, India** *August 2016 - June 2017*

- Maintained and enhanced existing user validation & auditing system to fixing existing bugs, adding new functionalities and improving program performance.
  **Technology Stack:** Java Server Faces, Html5, JQuery, SOAP API

## ACADEMIC PROJECTS

**A user-friendly system with rapid programming of mobile manipulator robots | Thesis** *August 2018*

- Developing an end-to-end system that would dynamically populate blocks in browser representing possible actions for a robot and help non-roboticists to program the mobile robot to perform any manipulation task.
  **Technology Stack:** Java, Html5, JQuery, AJAX, ROS, PDDL

**Multi view 3D Object Reconstruction using Deep Neural Networks | Robotics** *Spring 2018*

- Integrated ROS enabled 3D Recurrent Reconstruction Neural Network (3DR2N2) to generate 3D shape of an object from 2D images and calculated grasping positions on it.
  **Technology Stack:** Python, Numpy, Convolution Neural Network, Recurrent Neural Network

**Smart Video Surveillance System using Deep Neural Network & POMDPs | Robotics** *Spring 2018*

- Implemented a deep object detection network (YOLO) that captured object's movements in the current camera frame which then served as an evidence to a Partially Observable Markov Decision model for visual servoing.
  **Technology Stack:** Python, Java, OpenCV, Convolution Neural Network

**Comprehensive implementation of AI methods in Pacman Gaming Environment | AI** *Fall 2018*

- Implemented Pacman agent in an adversarial setting using DFS, BFS, UCS, A* search, Alpha-Beta pruning, Minimax, Value functions, model based and model free reinforcement learning algorithm.
  **Technology Stack:** Python, Tensorflow

**Faster Planning Algorithm for Autonomous Agents | Thesis** *Fall 2017*

- Developed a new version of the Fast Forward Planner (FF) that rapidly generated new plans for autonomous agents using previous search knowledge.
  **Technology Stack:** Java, ROS, PDDL, Matplotlib

## PERSONAL PROJECTS | GITHUB

Developing a voice enabled calling application (AIY VoiceKit, Python, Android).

Developed a virtual math teacher that can ask and answer questions on basic addition, subtraction, multiplication and division (AIY VoiceKit, Python).

Built a Convolutional Neural Network to find a phone in an image with minimum amount of data to train on (training images = 130; Tensorfow, Python, Numpy, Matplotlib).

Implemented digit recognition on MNIST dataset using Convolution Neural Network (Python, Numpy, Tensorfow).