# YASH KOTADIA

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## EDUCATION

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|---|---|---|
| Exp 2021 | **Master of Science in Computer Science** | *Tempe, Arizona* |
| | Ira A. Futon School of Engineering, Arizona State University [GPA 3.78/4] | |
| 2019 | **Bachelor of Engineering in Computer Engineering** | *Mumbai, India* |
| | Dwarkadas J. Sanghvi College of Engineering [GPA: 9.11/10] | |

## EXPERIENCE

**Aug '19 – Jan '20**   **Research Volunteer, Active Perception Group - ASU**   *Tempe, Arizona*
- Migrating methods of visual navigation in indoor scenarios from simulated to real-world datasets.
- Preprocessed data and trained a model to generate local top-down semantic map from FPV images.

**Dec '18 - Feb '19**   **Summer Research Scholar, University of Auckland**   *Auckland, New Zealand*
- Explored the efficacy of Photo Response Non-Uniformity and deep learning for the identification of deepfake videos. [Link]

**Aug '18 - Oct '18**   **Research Intern, Indian Institute of Technology Bombay**   *Mumbai, India*
- Development of AI solutions for Traffic Violation Detection in the Indian setting.
- Built a Tkinter based GUI tool for annotating videos and deployed a system for annotating 5 million video frames. Integrated object detection outputs and tracking for reducing annotation efforts.
- Analyzed attention and saliency maps for improving tensorflow model trained to read license-plates.
- Developed a real-time model to detect the presence of a vehicle in an image.

## PROJECTS

**Feb '20**   **Raspberry Pi Surveillance System with Cloud based Object Detection**   *AWS, Python*
- Devised a surveillance system that performs near real-time object detection using AWS EC2.
- Implemented edge computing and auto-scaling to minimize usage of cloud resources. [Link]

**Jul '18-May 19'**   **3D Reconstruction of Room Layout using 2D Images**   *Python, PyTorch, OpenCV*
- Developed a deep learning model that can produce the 3D layout of a room given its RGB images. The primary goal is to generate entire 3D layout from a single panoramic image of the room.
- CVPR Workshop 3D Scene Generation Publication. [Paper]

**Feb-Apr '18**   **Extract Semantic Information from Location Data**   *Python, gmplot, Pandas*
- Developed a generalizable model to mine user's spatio-temporal data available on Google Takeout.
- Extracted semantic information such as the time spent by a user at a place and the type of place, for behavior analysis.

**Feb 2018**   **OneWorld: A Roof for Every Refugee**   *Django, JavaScript, SQLite*
- Developed an end to end online platform for assisting organizations in helping out Refugees. [Link]

**Oct 2017**   **FlapPy Bird Reinforcement Learning Bot**   *Python, PyGame, Tkinter*
- Developed a reinforcement learning bot to beat the game Flappy Bird using Q-Learning.
- The bot surpasses humans with scores over 5,00,000 after 33,000 training episodes. [Link]

**Dec 2016**   **Game Development**   *Java*
- Worked on developing the games Yahtzee, Brickbreaker and Hangman solely using the Java ACM Library. [Link]

## SKILLS & COURSES

**Languages**: Python, C++, C, Java, Shell, MATLAB      **Web Technologies**: HTML5, CSS, JavaScript, SQL, Django, AWS
**Courses:** Cloud Computing, Statistical Machine Learning, Data Mining, Data Structures & Algorithms, Software Engineering, Artificial Intelligence, Operating Systems, Theoretical Computer Science, Database Management Systems

## ACHIEVEMENTS

- Awarded Summer Research Scholarship of NZ$6000 for pursuing research at University of Auckland.
- Selected for and attended summer school on Machine Learning/ Computer Vision at International Institute of Information Technology - Hyderabad(IIIT-H), August 2018.
- Finalist at the NSE Machine Learning Hackathon 2018, a national level hackathon.
- 2nd Runner Up at 'CSI: Codeshastra 4.0' 2018, an inter-college hackathon.
- Finalist at the DAIICT: Hack Infinity 2017, a national level hackathon.