

Yash Tripathi

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EDUCATION

University of Southern California

Master of Science in Computer Science GPA(3.5/4.0)

Courses: Analysis of Algorithms, Database Systems, Machine Learning, Information Retrieval, Artificial Intelligence, Foundations and Applications of Data Mining, Intro to Cryptography

Los Angeles, CA

January 2019-December 2020

Dr. A.P.J. Abdul Kalam Technical University

Bachelor of Technology in Computer Science And Engineering(Honours) GPA(3.5/4.0)

Lucknow, India

August 2014-July 2018

SKILLS

Programming Languages and Databases: Java, Python, C, Scala, JavaScript, MySQL, PostgreSQL

Tools and Frameworks: Android Studio, Django, Django Rest Framework, WebRTC, Node.js, Apache Spark, Pandas, Microsoft Office, Tableau, Raspberry Pi 2B, MATLAB, JavaFx

EXPERIENCE

Software Engineer Intern at Tech For Good Inc, Sharon, Massachusetts

June 2020-August 2020

- Developed Django websites for one of the projects and fetched and sent data using RESTful APIs with Django REST Framework.
- Implemented a WebRTC video conference system where Real time browser to browser communication took place using ICE candidates and Stun servers with additional features like video calling and chat box messaging.

Application Development Intern at Oigetit Fake News Filter, Sunnyvale, CA

May 2020-July 2020

- Worked on the beta version of the Android Mobile App as well as the Oigetit website.
- Responsible for fixing bugs in the mobile app code, add features and functionalities to the back end as well as provide Google Analytics support to the Oigetit website.

GIPEDI Summer Research Intern at IIT Delhi (Indian Institute of Technology)

May 2017-July 2017

- Worked with 2 other students under Prof. Seshan Srirangarajan, to design an energy saving **Autonomous Lighting System** for Classrooms.
- Used a Raspberry pi 2B to control the lighting in the given area. If a presence was detected, the lights were automatically switched on.
- Programmed the microcomputer and collaborated in writing image processing scripts using Python and OpenCV.

PROJECTS

- Geospatial Data Handling:** Constructed Spirograph on ArgGIS using up to 100 spatial points that were generated in Java using and stored in a KML file. Computed Convex Hull and KNN in Postgres then plotted visualizations on Google Earth.
- AI Gaming Agent:** Developed an Adversarial Gaming Agent in Python, for playing Halma (similar to checkers), using Min-Max algorithm and Alpha-beta pruning.
- Recommendation System:** Implemented Model-Based, User-Based and Item-Based Collaborative Filtering Recommendation Systems using Apache PySpark, to predict the ratings for given user id and business id, for Yelp data set.
- Community Detection:** Used Girvan-Newman algorithm in Spark for detecting communities in a graph for given CSV file. The aim was to divide the graph into suitable communities, that reach the global highest modularity.
- E-Yantra IIT BOMBAY:** Led a 6 member team, which coded an ATMEGA FIREBIRD microcontroller using HEX files, in order to solve a puzzle.
- Real Time Monitoring System For The Disabled:** Developed system for monitoring disabled people, where Raspberry PI2B performed Face-Detection and Facial-Recognition using HAAR Cascade, verifying presence of caretaker.

INVOLVEMENT

- Top 3 in 2019 USC Viterbi Graduate Hackathon:** Collaborated with 2 students, where our group re-engineered Streaming Data Payment Protocol (SDPP) in JavaScript. Originally proposed by Autonomous Networks Research Group at University of Southern California.
- USC Robotics and Coding Academy:** Conducted mentoring sessions for 4th and 5th grade students to teach robotics and motion functionalities using C along with spreading Cyber Security awareness. Active member of Robotics and Coding Academy of USC.
- Finals of 2017 Smart India Hackathon(Department of Defence Production, Government of India):** Led a 6 member team, that developed an **Alertness Measurement Tool**. We included blink detection code, Google Vision APIs and user questionnaire.