Rahul Malavalli

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EXPERIENCE

FACEBOOK | Software Engineering Intern

June 2018 - September 2018 | Menlo Park, CA

- Storage/databases team for Messenger Infrastructure.
- Developed internal tool for recovery of content in disaster scenarios.

BUILDUCLA COLLECTIONS LAB | Student Researcher

January 2018 - June 2018 | Los Angeles, CA

- Trained models and developed pipeline to detect annotations/marginalia of interest to researchers in digital copies of old books and manuscripts.
- Implemented Convolutional Neural Networks (CNNs) in PyTorch to perform appropriate object recognition and detection computer vision tasks.
- https://github.com/collectionslab/annotations-computervision

GOOGLE | Software Engineering Intern

June 2017 - September 2017 | Mountain View, CA

- Analyzed Android Instant App memory footprints and visibility, among other factors, to determine causes of instant app crashes in low memory situations.
- Implemented instant app process management system in Java to gracefully manage Android Instant App life cycles and ensure smooth user experience.

SENSING AT RISK POPULATIONS LAB, UCLA HEALTH | Undergraduate Researcher

April 2016 - September 2016 | Los Angeles, CA

- Allows physicians to remotely monitor geriatric patient health and activity.
- Trained models (using scikit-learn in Python) to predict patient position and activity from raw smart watch data, improving precision and recall on poorly performing activities by nearly 2.5 fold.
- http://risksciences.ucla.edu/smart-health/

PLAYFULL | Lead Android Developer

December 2014 - September 2015 | Los Angeles, CA

- Developed Android app and games (Java) in local startup; rewards users with discounts at restaurants for playing games. www.beplayfull.com

PROJECTS

FPGA DEPTH PERCEPTION | CS 152B Final Project

October 2017 – December 2017

- Performed basic depth perception with low resolution/quality camera input.
- Initial project in basic computer vision, experimented with depth perception on Field Programmable Gate Array (FPGA) with stereo camera peripheral.
- Optimized Sum of Absolute Differences (SAD) algorithm to run on FPGA.

RESEARCH PAPER | Indoor Positioning through Machine Learning on WiFi Fingerprints

February 2017 – September 2017

- Trained machine learning models on ambient WiFi RSSI values to achieve F-measures at and above 0.9 in university and home environments.
- Integrated model into Android application for live training and prediction.
- Paper written with two partners accepted into international conference (IPIN 2017) in WIP division; presented poster at the conference.
- http://www.ipin2017.org/ipinpapers/224/224.pdf
- https://github.com/arjun372/Indoor-WiFi-Localizer

SKILLS

LANGUAGES

Java
Python
C++
C
HTML

PROGRAMMING

Object Oriented Programming
Machine Learning
Basic Deep Learning
Basic Computer Vision
Android and Game Development
Distributed Systems
Operating System Development
UNIX and Bash

LINKS

https://www.linkedin.com/in/rahul-m
https://github.com/rahulm11

EDUCATION

UNIVERSITY OF CALIFORNIA, LOS ANGELES

M.S., Computer Science
Expected Graduation by June 2020

B.S., Computer Science and Engineering
Graduated June 2018
Cum. GPA: 3.567

SELECTED COURSEWORK

Data Structures
Intro to Algorithms & Complexity
Operating Systems Principles
Computer Systems Architecture
Intro to Logic Design
Systems and Signals
Fundamentals of AI
Intro to Computer Graphics (in WebGL)
Computer Network Fundamentals
Entrepreneurship for Engineers
Introduction to Machine Learning

ADDITIONAL PROJECTS

EE3 Project - Arduino Knock Unlock	Apr. - June 2016
LAHacks 2016 - PorFavor	Apr. 2016
Hacketech 2016 - PoliSense	Feb. 2016
HackUCI 2015 - Kinect VR Game	Nov. 2015
Android App - UCLA Dining	Summer 2015
Android Game - Amaze	Summer 2014