IVAN CHEN

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EDUCATION

University of Southern California
Bachelor of Science Computer Science
May 2018

Extracurricular: USC ACM (2015-present), IEEE (2016-present), MESA (2013-2015), UCB TAP (2013-2015), Starting Point Mentorship Program (2013-2015)
Awards: USC Viterbi Dean's List Spring 2016, Phi Theta Kappa Honor Society (2014-present)
Related Courses: Software Engineering, Operating Systems, Multimedia Systems Design, Design and Construction of Large Software Systems, Artificial Intelligence, Professional C++, App Development for Android, Video Game Programming, Probability Theory, Foundation of Digital System Design, Introduction to Embedded Systems, Intro to Algorithms and Theory, Data Structures and Object Oriented Design
Volunteering: HACKSC JR, CS@SC HOUR OF CODE
Research: Undergraduate Researcher - Teamcore

EXPERIENCE

SIEMENS PLM SOFTWARE
Software Engineering Intern
Los Angeles, CA
Jan 2018 to Current

- Implemented an business intelligence analytics tool for various key performance indicators (KPI) related to Siemens PLM's online business and that provides insight into the average lifecycle of a prospect and customer
- Set up alerts and notifications feature using AWS to send emails when user defined KPI thresholds are met using Python.
- Managed the product after presenting the to the Siemens' executive team and implemented feedback into the system
- Calculated KPI's using Python and dynamically updated the webpage based on real data input
- Incorporated an editable visualization table for financial reports which allows for client-side editable data
- Hosted the tool using AWS EC2 to allow for secure and reliable access and convenient integration for the Siemens team

USC VITERBI SCHOOL OF ENGINEERING
Teaching Assistant- Web Publishing
Los Angeles, CA
Aug 2017 to Current

- Assisted students in class, graded projects while providing feedback, and worked with students individually during weekly office hours.
- Taught students to understand the essentials of HTML, CSS, and javascript

WESTERN DIGITAL
Firmware Engineering Intern - Client Firmware Team
Irvine, CA
May 2017 to Aug 2017

- Developed features in C for the Closed Loop Dynamic Fly Height that calculates averaged data gathered by the head over the readable media during read/write commands of the drive in the firmware of all future HDDs.
- Ran benchmarks to determine the optimum firmware revision to ship to clients
- Found critical bugs and created logs to catch future issues during debug stops by using an emulator

PROJECTS

VIDEOINTELLIGENCE
Mar 2018 to May 2018

- Built a video recommendation platform that analyzes videos and gives recommendations to other videos that is the most similar while also providing key details about the video
- Incorporated three video descriptors that recommends videos based on objects, color, and motion
- Utilized computer vision to analyze key objects in videos and used it to compare with other videos and generate a score based on similarity
- Analyze frames using K-means clustering for every frame and utilized the 5 dominant colors, using color similarity as recommendations
- Calculated motion in videos by converting frames to grayscale, finding the absolute difference between two successive frames, dilated the result, and used the summation of area contours to determine total motion which is compared

QUEUE DELAY - UCI HACKS
Feb 2017 to Feb 2017

- Implemented a quirky web app that takes the search query the client typed, saves it to a server, and returns the previous saved query to be searched by the client.
- Developed with HTML, CSS, Javascript, Firebase

RECANALYZE - LAHACKS
Apr 2017 to Apr 2017

- Worked in a team of 5 to build a web app that analyzes receipts to provide a concentric place to keep track of travel expenses per group
- Implemented the computer vision feature to analyze the receipts
- Enhanced the front-end experience using HTML/CSS
- Contributed to back-end to help store the data for the consumer

GRUBMATE
Aug 2017 to Dec 2017

- Built an Android crowdsourcing application in a group of 5 that allows students to deliver and request food from friends on school campus
- Directed team to prioritize functionality and ensured the product satisfies the requirements by the deadlines
- Implemented functionality to upload pictures to the app and display them for individual posts, using Firebase Storage, Firebase, and Volley
- Led development of the front-end and wrote comprehensive black box and white box testing

DEBONAIR
Apr 2017 to May 2017

- Constructed an Android photo application that to assist the visually impaired detect faces in their pictures
- Incorporated computer vision to analyze images on the application to determine faces and stores them with a name
- Created login screen using Firebase authentication to ensure secure logins
- Stored and hosted images using Firebase Storage to provide previews of analyzed photos in the home screen

SKILLS

PROGRAMMING LANGUAGES:
C++ (proficient), Java (proficient), Android (knowledgable), Javascript (knowledgable), C (knowledgable), MySQL (knowledgeable), HTML/CSS (proficient), Python (knowledgable)
SOFTWARE: Android SDK, MySQL Workbench, SVN, Emulator, AWS, Photoshop, Firebase, Azure, Git, Bootstrap, Google Cloud, Flask, Trello, Maven, Gradle, OpenCV, Glide, XML, IDE, Vim, Java Swing, Arduino, Plotly, K-Mean Clustering, RSA