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Berkeley, CA

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Bill Zhou

Highlights

- Experience in applied software development. Key contributor to open source AR project.
- Strong teamwork/communication skills. Served in college student government
- Solid academic background. Dean's Honor. Cal Alumni Scholar. National AP Scholar

EDUCATION

UC Berkeley
Computer Science
Class of 2019

GPA: 3.83

Relevant Coursework: Advanced Algorithms (CS170), Data Structures (CS61B), Discrete Mathematics and Probability Theory (CS70), Structure of Computer Programs (CS61A), Linear Algebra and Differential Equations (MATH54)

Awards: Cal Alumni Scholarship 2015, Dean's Honor (Top 4% of undergraduates)

PROFESSIONAL SKILLS

Languages

Java, C/C++, Python, Perl, SQL, HTML, CSS, PHP, Javascript

Platforms / Tools

Linux, Windows, Android, OpenCV, Qt, Artifactory, Git, Jenkins, Maven, Docker, Perforce

WORK EXPERIENCE

SOFTWARE ENGINEERING INTERN

Salesforce
San Francisco, California

- Member of the Core Infrastructure Department developing Salesforce's next generation continuous deployment pipeline May 2016 - Aug 2016
- Analyzed origin of load balancer overstress during Salesforce's large product deployments
- Implemented new delivery mechanism to prioritize the decompression order of artifacts based on change velocity
- Developed "linked containers" to share common dependencies between multiple application containers while maintaining mutual isolation
- Upgraded production host installation engine with multithreading capabilities to install up to five packages simultaneously
- Reduced Salesforce core app (9 GB) deploy time by 40%

RESEARCHER

Center for Augmented Cognition
UC Berkeley, California

- Performed graduate-level research under Dr. Allen Y. Yang to assemble a universal solution enabling human-computer interaction in augmented reality Aug 2015 - Present
- Principal architect of **OpenARK**, the first open sourced augmented reality SDK aimed at accelerating AR application development
- Collaborated with a interdisciplinary team of undergraduate and graduate researchers

PROJECTS

**OpenARK
(Augmented Reality Kit)**
C++ / OpenCV / PCL

- Designed a suite of augmented reality algorithms to enable fluid human interaction with 3D holograms
- Innovated tactile feedback experience in augmented reality
- Developed real-time planar surface classification through delaunay triangulation of supervoxels (computes over 110 surface regression models per second).
- Enhanced finger tracking to operate under any lighting condition with false-positive interference
- Demo project created with OpenARK can be found on <http://billzhou.me/openark>

**Traffic Hazard Detection
using In-Context Recognition**
C++ / OpenCV / Qt

- Created cross-platform system capable of warning drivers of traffic hazards
- Rapidly classified road signs, vehicles, and pedestrians with contour shapes supported by Haar Cascade
- Recognized turn signal by analyzing periodic saturation and luminosity changes on identified vehicles
- Boosted accuracy by isolating areas of likely hazard occurrence based surrounding context

LEADERSHIP

**VICE PRESIDENT OF
STRATEGY & OPERATION**
Virtual Reality @ Berkeley
UC Berkeley, California

- Responsible for aligning operational strategies with organizational goals 2016 - Present
- Boosted membership from 250 to 550 through diversifying research focus to include art, storytelling, and animations
- Worked to establish partnership with Berkeley Center for Augmented Cognition and gain support from Microsoft, Siemens, and DJI

EVENT COORDINATOR
ASUC SUPERB
UC Berkeley, California

- Planned university wide recreational events for students of UC Berkeley 2015 - Present
- Worked with contractors to bring large scale games (i.e. laser tag) to campus
- Handled logistics for scheduling, costs, and equipment booking