MARK V. PENG

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EXPERIENCE

Palantir Technologies Palo Alto, CA
Software Engineer in Test (Product Quality Engineer) Summer 2015 - Summer 2016

- Refactored test coverage for Palantir's flagship product, Palantir Government (PG), as part of a large scale effort to produce a dependable body of tests with reliable signal
- Transitioned the core infrastructure behind PG's automation framework from local VMs to AWS, eliminating the need for costly local hardware
- Automated regression test workflows, saving the 12-person team from 10+ hours of manual testing on a weekly basis
- Owned and supported the JSON API that exposes the PG backend to dozens of Palantir's web applications, as part of a two-person team

Product Quality Engineer Intern - Mobile Team Summer 2014

- Conducted integration and regression testing for the Android and iOS apps
- Enabled automated testing of the Android client by implementing the infrastructure behind VM setup and application installation

High Fidelity - *building a next-generation virtual reality platform* - highfidelity.io San Francisco, CA
Software Engineering Intern Summer 2013

- Developed a network-performance monitoring interface for High Fidelity's alpha-stage virtual world as one of HiFi's first interns
- Worked with CEO to establish a bi-weekly all-hands meeting in the virtual world (now a HiFi tradition)
- Redesigned avatar-to-avatar interactions by developing new visual indicators that show when/how avatars are interacting
- Debugged existing voxel-editing tools (cut, copy, & paste) and implemented new precision tools to allow users to easily build creative content in the virtual world in a Minecraft-like fashion

Virtual Human Interaction Lab, Stanford University Stanford, CA
Lab Programmer Fall 2013 - Spring 2014

- Designed a virtual world in Unity that interfaces with HMDs and accelerometers for use in Stanford sociology studies
- Worked on a team with graduate students to develop data analysis scripts in Python for graduate research use

Stanford Department of Bioengineering, Pelc Group Stanford, CA
Research Partner Summer 2012

- Independently designed a novel mechanical assembly to reduce radiation exposed to medical patients during CT scans
- Produced parts with computer-aided design tools and rapid prototyping tools (FDM 3-D printing) in-house
- Managed logistics/budget surrounding the purchase of electrical parts for the prototype
- Assembled entire working prototype in-house and participated in initial data collection/evaluation

PROJECTS

Piano Fingering Generation: Used linear-CRFs to generate fingerings for piano sheet music, informing beginners of which fingers to use
3D Video Overlay Effects: Rendered 3D objects over a video feed using a Kinect and OpenGL, taking Google Hangout overlays to the next dimension
Machine Learning & League of Legends: Predicted with 70% accuracy the outcome of LoL matches using clustering and classification algorithms on data from 130k matches obtained through the LoL API

EDUCATION

Stanford University Spring 2015
B.S. in Symbolic Systems - Concentration in Artificial Intelligence
Coursework – Machine Learning, Artificial Intelligence, Computer Vision, Object Oriented Programming, Computer Organization and Systems, From Languages to Information, Mathematical Methods for Robotics, CV, and Graphics

SKILLS & INTERESTS

Skills: Java, Python, C/C++, Bash, Git, MATLAB; Familiar with OpenCV, OpenGL, OpenNI, Appium, Qt
Interests: automation, gamification, virtual reality, computer vision, EdTech, quantified-self, basketball, volleyball