

MARK V. PENG

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EXPERIENCE

Palantir Technologies

Palo Alto, CA

Software Engineer in Test (Product Quality Engineer)

Summer 2015 - Spring 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 core infrastructure in PG's Java automation framework to support AWS VMs, eliminating the need for costly local VMs
- Automated regression test workflows, saving the 12-person team from 10+ hours of manual testing on a weekly basis
- Owned the Java & JSON APIs that expose the PG backend to dozens of Palantir's web applications, as part of a two-person team

Software Engineer Intern in Test - Mobile Team

Summer 2014

- Conducted 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

Palo Alto, 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
- Developed data analysis scripts in Python that parsed gigabytes of positional/rotational data for graduate research projects

Stanford Department of Bioengineering, Pelc Group

Palo Alto, CA

Research Assistant

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 Python and CRFs to generate fingerings for sheet music, informing beginners which fingers to use
- *3D Video Overlay Effects*: Rendered 3D objects over a video feed using a Kinect, OpenNI, 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: the future of education, gamification, augmented reality, navigating Bay Area traffic, impersonating Steph Curry, sprinting (but not running)