### **HELEN (HUIMING) HAN**

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### Education

UC Berkeley - Computer Science B.A.

**Expected Graduation: Dec 2015** 

Relevant Courses: Algorithms, Intro to Artificial Intelligence, Computer Graphics, Engineering Parallel Software GPA: 3.615

### **Skills**

Proficient: Python, Java, C++, C

Basic: PHP, MatLab, HTML/CSS, Javascript, Android

Adobe Photoshop, Adobe Dreamweaver, Autodesk Maya, Jekyll

### **Experience**

# Software Engineering Intern, Visa Inc. — May-August 2014 Payment Acceptance at Cybersource

Helped develop a new payment gateway in Java. Implemented gateway validation engine using custom Spring framework. Developed the daemon in between the merchant facing frontend and payment processor.

## Research Assistant, UC Berkeley Vision and Learning Center — Jan-May 2013 vislab.berkeleyvision.org

Developed web scraper using Python and MongoDB to gather large dataset of images for computer vision research. Paper published.

### Research Assistant, Bay Area IP LLC. — Sept-Dec 2013

Research and development work to achieve robot humanoid hand vision control. Used OpenCV to track the position of a laser in a video stream.

### Technical Intern, StrollerHikes — June 2011-July 2012 strollerhikes.com/find-a-hike

Develop the Find-A-Hike web app in PHP, using Google Maps. Designed and developed web pages using Adobe InDesign and Dreamweaver. Developed Android mobile version of Find-A-Hike.

### **Projects**

### Tumscraper github.com/h94h12/Tumscrapr Python, OpenCV

Web crawler that scrapes the blogs of two Tumblr users and estimates the similarity of their aesthetic preferences. Won Best Beginners Hack at HackJam 2014.

### Procedural Terrain Generation <u>github.com/h94h12/MT-Terrain</u> C++, OpenGL

Generates a pseudo-random lake scene complete with reflections, clouds and lighting effects using isosurface extraction, density functions, and Perlin noise

### Parallelized Ray Tracer <u>github.com/zhixu/raytracer-SSE-AABB</u> C++, OpenMP

OpenGL independent implementation of a ray tracer. Optimized to run 2800 times faster than serial code using SSE intrinsics, OpenMP, and AABB trees.

#### **Publications**

### Recognizing Image Style at BMVC 2014

arxiv.org/pdf/1311.3715.pdf

Sergey Karayev, Matthew Trentacoste, **Helen Han**, Aseem Agarwala, Trevor Darrell, Aaron Hertzmann, Holger Winnemöller