Y. DOROTHY JUNG

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EDUCATION

University of California, Berkeley — Expected Graduation: May 2015
B.A. Computer Science, B.A. French with Honors — GPA: 3.62

Relevant Coursework — Computer Graphics, Operating Systems and Systems Programming, Computer Architecture, Computer Security, Computer Networking, Microelectronic Circuits
Randomized Algorithms, Efficient Algorithms and Intractable Problems, Discrete Math and Probability Theory, Linear Algebra, Differential Equations

EXPERIENCE

DreamWorks Animation | *R&D Intern* — Redwood City, CA
Jan 2014 – Jun 2014

- Integrated GCC 4.8 and ICC 14.1 compilers into the studio development environment by refactoring and optimizing performance of existing proprietary rendering software. (C++)
- Wrote a testing application to check for inconsistencies across ~250 packages of studio software and third-party extensions for Maya, Houdini, and Nuke. (Python)
- Communicated with Technical Directors and other developers to provide technical support on *How to Train Your Dragon 2*, *Penguins of Madagascar*, and *Home*

Mirixa Corporation | *Engineering Intern* — Emeryville, CA
Sept 2013 – Nov 2013

- Wrote scripts to test the functionality and design of the product interface. (JavaScript)
- Communicated with full-time developers and clients to troubleshoot product bugs.

PROJECTS

Brainability (Illustrator, Photoshop, Java)
Designed an Android application to measure user productivity on a task using data obtained from a portable EEG using Emotiv Insight SDK. Won the *Judges' Choice Award* at a hackathon hosted by Emotiv/Pivotal Labs.

Tessellation of Bezier surfaces (C++, OpenGL)
Subdivided parametric surfaces using de Casteljau's algorithm given control points defining a set of Bezier curves. Wrote one version for adaptive triangulation and another for uniform subdivision. Wrote parser to render arbitrary .obj files.

Inverse kinematics solver (C++, OpenGL)
Animated a 4-segment arm with 3 degrees of freedom. Used Newton's method to approximate change in joint angles with linearization. Calculated the pseudo-inverse of Jacobian matrices using SVD.

Spam classifier using decision tree learning (Python)
Implemented a random forest classifier to flag e-mails as spam. Used bagging to select random subsets of features and an entropy-based impurity metric to greedily select the splitting rule at each node.

SKILLS

Languages and Libraries	Python, C++(98/11), C, Java, x86 assembly, OpenGL, HTML5/CSS3/JavaScript
Development Tools	Bash shell scripting, gcc, gdb, make, git
Human Languages	French (fluent), Korean (working proficiency)

ACTIVITIES AND HONORS

Institute of Electrical and Electronics Engineers (IEEE) | *Officer* — 2013 – Present
Organize the bi-annual UC Berkeley Startup Fair. Create flyers and pamphlets in Illustrator.

UC Berkeley French Department | *French Tutor* — 2012 – Present

Expanding Your Horizons (EYH) Conference for Girls in STEM | *Mentor* — 2013

Bausch & Lomb Honorary Science Award — 2010