Y. DOROTHY JUNG

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EDUCATION

University of California, Berkeley — Expected Graduation: Aug 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

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