BOB FENG

bjfeng@berkeley.edu | (909) 282-2498 | 2310 Fulton Street, Berkeley, CA 94704 | www.bob-feng.com

Education

UNIVERSITY OF CALIFORNIA, BERKELEY   *Class of 2019 (Junior)*
B.A. Computer Science
Relevant coursework:
- UI & UX (Html, CSS, JavaScript, jQuery)
- Security & Operating Systems (Python, C)
- Discrete Math, Algorithms, & Probability
- Graphics & Computer Vision (C, C++)
- Database Management Systems (Java, SQL)
- AI & Machine Learning (Python)

Projects

Security   *Spring 2018*
Secure File Systems
- Designed a filesystem that ensures confidentiality, integrity, and authenticity using CBC-AES symmetric key and el Gamal asymmetric key encryption as well as MAC and RSA for signatures respectively.
- Enabled a sharing and revoking feature in the filesystem through a distributed security layout that prevent malicious agents from accessing any information being transferred.

Ray Tracer   *Spring 2018*
Physically-based Renderer
- Able to render images with full global illumination, using a probabilistic estimate of infinite light bounces.
- Improved the efficiency of ray-mesh collision using a bounding volume hierarchy acceleration structure.
- Created support for complex materials like glass and mirrors as well as BRDF's for microfacet materials.
- Added the option to support depth of field using a virtual thin-lens in front of the camera.

PintOS   *Fall 2017*
Operating System
- Added efficient thread functionality such as non-busy waiting and priority scheduling utilizing synchronization variables like semaphores, locks, and condition variables.
- Implemented syscall functionality that maintained ACID standards to prevent against failure.
- Created a virtual cache using Clock Replacement Algorithm and write through to maintain RAM efficiency.

Organizations

PBL – Berkeley Phi Beta Lambda   *Fall 2016 – Current*
Consulting and Internal Networking Committee Chair
- Planned 30+ member retreats, internal events, and large-scale activities for members to bond as a team.
- Preformed and taught case studies of companies and developed new marketing and branding strategies.

Tech Team
- Gathered schedule availabilities of members in csv and converted to JSON format for further processing.
- Developed an algorithm based on simulated annealing to schedule events for maximum attendance.
- Developed interactive front-end website to host the generated tabling schedules for club-wide use.

Experiences

Boalt Library Staff   *Spring 2018 – Current*
Lab Technician
- Aided law students in any technical issue whether that's in setting up software for WiFi use, printing server access, queuing up for the print queue, and printer system maintenance.

CS61A Course Staff   *Spring 2016 – Spring 2017*
Lab Assistant and Tutor
- Tutored students one on one about topics such as object oriented programming, recursion, and run time.
- Paired up with one struggling student and assisted him in organization and studying over the semester.

Coding Languages: Python, Java, C, C++, HTML, CSS, JavaScript, JQuery, and SQL
Interests: Skiing, Longboarding, Hiking, Movies, Physics, and Pen Spinning