

YUXUAN (ANDREW) LIU

(415) 867.3554 | yuxuanliu@berkeley.edu | yuxuanliu.com | github.com/wyndwarrior | linkedin.com/in/wynd07

EDUCATION

University of California Berkeley

Aug 2014 – May 2018 Expected

B.S. Electrical Engineering and Computer Science – GPA 4.000

EXPERIENCE

Dropbox

Software Engineer Intern | May 2015 – Aug 2015

- Developed iOS Safari extension to save web pages as PDF
- Applied discrete Fourier transform on pixel lightness and saturation to identify text and image content
- Designed dynamic programming algorithm to minimize content page cutoff
- Implemented recursive CALayer drawing to create non-rasterized PDFs with selectable text

Undergraduate Student Instructor

EE 16A | Designing Information Devices and Systems | Jan 2016 – May 2016

- Taught and managed circuit labs in imaging, touch detection, and locationing

Undergraduate Researcher

Robot Learning Lab | Pieter Abbeel | Sep 2015 – Present

- Analyzed human exploration patterns in Atari 2600 gameplay with Amazon Mechanical Turk

PROJECTS

ARCode

- Designed audio transmission protocol to send messages, links, and pictures
- Encoded bytes as audio frequencies and decoded with FFT
- Won first place at HackRice, programming competition with over 250 participants

Dreamboard

- Built theming platform with interactive widgets, custom script parse, and user-defined layouts
- Used Objective-C message swizzling and CydiaSubstrate to inject custom methods into SpringBoard
- Over 11 million downloads in Cydia

iSwipe

- Created first gesture-based keyboard for iOS 4 by objc message swizzling UIKeyboard methods
- Designed dynamic programming algorithm to match dictionary words with vector angle differences

Minecraft Mini

- Developed lite version of Minecraft in Java OpenGL with physics and water simulation
- Implemented directional flood fill to optimize rendering and perlin noise to generate maps

Intellifit

- Created iOS fitness tracker to record and match activities, powered by Myo
- Implemented dynamic time warping algorithm to align recorded activities with motion data

HONORS

USACO

USA Computing Olympiad – Gold Division

Honor Societies

HKN Eta Kappa Nu – Top 25% of Electrical Engineering and Computer Science. Activities Officer 2015

TBP Tau Beta Pi – Top 12.5% of College of Engineering. Information Technology Officer 2015

SKILLS

Languages

Java, Objective-C, Javascript, python, C++, C, PHP

Technologies

iOS, git, Google App Engine, Tomcat, TCP/IP, OpenGL, MySQL