Allan Peng

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WHERE I STUDY

University of California, Berkeley — Graduated Dec. 2016
BA, Applied Mathematics, Computer Science GPA: 3.47

WHERE I'VE WORKED

Facebook: Engineering Intern, Internet.org Scalability Team — *Fall 2015*
- Worked on iorg traffic monitor, a central debugging tool for Android engineers on iorg team
- Implemented functionality for engineers to dogfood Facebook products (FBLite, Free Basics, Native Facebook) using phone connections through carriers from different countries

LinkedIn: Engineering Intern, Secure-Infrastructure Team — *Summer 2015*
- Worked on certificate authority service and command-line tools performing SSL certificate generation, validation, and tracking
- Used by engineers to validate identity while debugging services over an HTTPS network.

UC Berkeley: Photography Principles Decal Instructor — *Spring 2016-Fall 2016*
- Give weekly lectures on artistic styles, camera operation, and editing tools.
- Lead critique sessions, and give constructive feedback on student work.
- Work with co-instructors to organize lesson plans for a class of 30 beginning photographers

THINGS I'VE WORKED ON

Network Firewall — [Python]
- Developed a stateful packet filter, with both whitelist and blacklist filtering for a Linux VM
- Supports IP blocking, building DNS DENY & TCP RST packets, and logging HTTP transactions

Voice Controlled Guitar Robot — [Python, Raspberry Pi]
- Programmed embedded system that plays a six-stringed guitar, controlled by human voice.
- Uses Google Speech API for voice control, and RPI GPIO pins to actuate solenoids on frets.

Twenty-Four: *fourfactorial.herokuapp.com* — [Node.js, HTML, Javascript]
- Web-app based on the classic game where a player must make 24 using 4 given integers
- Game presents solvable sets in shuffled order, keeps track of fastest time and longest streak.

Markov Chain Monte Carlo Without Tears: — [LaTeX]
- Lecture-quality notes on MCMC methods, from basic theory to advanced algorithms
- Overview of state-of-the-art research on using MCMC methods to efficiently approximate solutions to #P problems in sub-exponential time

GROUPS I WORK WITH

Innovative Design — [VP of External Relations, VP of Internal Relations]
- Organized & hosted CMYK 2015, a day-long designathon attended by over 100 Berkeley students and judged by industry professionals from Priime, Dropbox, Facebook, Khan Academy
- Planned & organized socials and weekend retreat attended by over 80 club members

CLASSES I'VE TAKEN

- Graduate Algorithms
- Graduate Computational Geometry
- Complex Analysis
- Network Architecture
- Abstract Algebra
- AI & Machine Learning
- Operating Systems
- Computer Architecture
- Linear Algebra
- Probability Theory
- Embedded Systems
- Cyberlaw (London School of Economics)

THINGS I'M GOOD WITH

Languages: Python, Java, SQL, C, html, php, Music-Theory, Chinese
Software: LaTeX, Unix(git, Hg, bash), Flask, NumPy, Super Smash Bros. Melee
Other: Hand-printing books with Albion Press, Knowledge of Pop Culture, Gift-giving