STEPHEN OU

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WORK EXPERIENCE

WhatsApp

Software Engineer

Feature lead for WhatsApp Web/Desktop. Own the design and implementation of many new user-facing features.

- Built live location sharing, rich media editor, status ranking, quick replies, suspicious links detection, TouchBar support.
- Led efforts to improve performance, resulting in quicker cold start, smaller app size, faster rendering, smoother animations.

WhatsApp

Software Engineering Intern

Started an effort to make CI and deployment more efficient and less error-prone, on top of Facebook's infrastructure.

- Designed a new, custom continuous integration system that runs linting, type checking, testing, and asset generation tasks.
- Oreated a command-line tool that serves a one-stop shop for all deployment tasks (e.g. pushing to many remote servers).

WhatsApp

Software Engineering Intern

Jun 2016 - Sep 2016

Focused on improving end-to-end encryption for <u>web.whatsapp.com</u>, making encryption faster wherever possible.

- Implemented encrypted video streaming using AES-CBC block decryption. Let users play encrypted videos without waiting.
- Added a Verify Security Code feature that let users verify a chat is end-to-end encrypted by uploading/scanning a QR code.

CodeHS

Software Engineering Intern

Led two high-impact projects at CodeHS, a startup changing the way Computer Science is taught at K-12 schools.

- Wrote a video chat feature using WebRTC, allowing students to ask tutors questions inside a browser, without extra plugins.
- Developed a collaborative code editor and code runner, allowing tutors and students to exchange feedback in real time.

EDUCATION

Stanford University Bachelor's Degree, Computer Science Sep 2014 - Dec 2017

- Courses: Algorithms, Systems, Networking, Artificial Intelligence, Machine Learning, NLP, Security, Cryptography, Database
- Skills: JavaScript (+ React, Node, Electron, Flow), Python (+ Django), C++, C, Java, PHP, HTML, CSS, Sketch, a little Erlang
- Activities: CS106 Section Leader, Stanford Cycling, Stanford ASES, Sports Analytics, Hong Kong Student Association

PERSONAL PROJECTS + RESEARCH

iTunes Instant: an instant search engine for iTunes's songs, movies, TV shows and apps; served 400,000 users in 8 years.

• Generated significant revenue from iTunes affiliate program. Featured in Mashable, Gizmodo, Fast Company, Inc. Magazine.

Artsy Editor: a WordPress editor for professional writers; profitable since day 1 and has 400 paying customers to date.

• Produced a distraction-free editor with a smart formatting box, drag-and-drop image upload, and one-click image editing.

TwtRoulette: a tool to help you find interesting people to follow on Twitter from other people's authorized home timeline.

• Ran a successful marketing campaign. Forbes, TechCrunch, Huffington Post, PCMag, Business Insider reviewed the service.

OhBoard: a full-screen virtual whiteboard in your Chrome browser; it's amongst the first paid Chrome extensions ever built.

e Helped over 100 designers, developers, marketers, teachers, students, and artists jot down ideas and create wireframes.

Deep Learning with NLP: a research paper exploring question answering with a Bidirectional LSTM Attention Flow model.

Produced a 53.5 EM, 64.4 F1 on the test set, achieving 70% of state-of-the-art model's accuracy. Paper: stanford.io/2hVYyRH.

TEACHING, SPEAKING, LEADERSHIP

Section Leader/TA: for 8 straight quarters, I taught sections for intro to CS classes, graded exams/projects, held office hours. **TEDx Speaker**: I presented my thoughts on the future of young entrepreneurship and innovation at a local TEDx speaker event. Launchpad Director: I led a successful year-long rebranding effort for a Stanford entrepreneurship event with a team of 5.

Jun 2017 - Sep 2017

Jan 2018 - Present

Jun 2015 - Sep 2015