Mobile (510) 918-2926
Website stephenou.com

STEPHEN OU

Email me@stephenou.com
Open Source github.com/stephenou

WORK EXPERIENCE

WhatsApp Software Engineer Jan 2018 - Present

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 Jun 2017 - Sep 2017

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.
- Created 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 web.whatsapp.com, 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 Jun 2015 - Sep 2015

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.

• 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.