JEFF CHEN

🎓 EDUCATION

2012-2016 **Carnegie Mellon University Class of 2016 — B.S. Computer Science**
- Expected minors in Human-Computer Interaction and Robotics
- Relevant coursework: Algorithm Design and Analysis, Cloud Computing, Cognitive Robotics, Complexity Theory, Human-Robot Interaction, Interaction Design Overview, Science of the Web

💼 EXPERIENCE

2012-2014 **National Security Agency — Stokes Scholar**
- Held TS//SI clearance since 2012
- Wrote tool to neutralize Windows malware using infection markers
    - Enabled lightweight, fast, and accurate detection and neutralization of known malware
    - Applied heuristic analysis to potential infection markers with success rate comparable to commercial antivirus software
- Created tool for CNE operations
    - Surveys and collects computer-to-computer communications
    - Designed and implemented secure communications protocol

2010-2012 **Lead Developer — AUVSI RoboSub**
- Wrote and maintained software for an autonomous submarine
    - Implemented computer vision algorithms, including image segmentation, blob detection, and line detection
    - Wrote PID controller and Kalman filter for accurate motion through turbulent water
- Taught novice programmers object-oriented programming and C++

</> PROJECTS

July 2014 Wrote **Ties**, an Android application that helps people stay in touch.

April 2014 Implemented **computer stereo vision** in OpenCV using semi-global block matching.

Feb 2014 Created **MiniPlay**, a Chrome extension to operate Google Play Music and add features like global shortcuts and Last.fm scrobbling. Has over 400 daily users.

Aug 2013 Built a **threadpool** in modern C++11 to fill the gap in the C++ standard library between `std::async` and `std::thread`.

April 2013 Wrote **Skein**, a high-performance brute forcer to crack a Skein-1024 hash for the xkcd Alma Mater challenge, out-performing the efforts of entire universities, including Cornell and LSU.

Dec 2012 Wrote a **virtual machine** designed to interpret and execute `C0` bytecode as a final project.

Sept 2012 At the Fall 2012 PennApps hackathon, developed **Chroma**, an Android application designed to help colorblind people distinguish between the entire color spectrum.

✉ CONTACT

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⌨ CODE

C++	Python
C	SML
Java	x86
Javascript	Android
MongoDB	

🌐 WEB

CSS	LESS
HTML	Node.js
jQuery	Socket.IO

💻 OTHER

Bash	LaTeX
Git	CMD
Markdown	GDB