Jeff Chen

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🎓 EDUCATION

Carnegie Mellon Class of 2016 – *B.S. Computer Science – 3.4/4.0*

- Minor in Human-Computer Interaction
- Relevant coursework: Algorithm Design and Analysis, Cloud Computing, Cognitive Robotics, Complexity Theory, Human-Robot Interaction, Interaction Design Overview, Science of the Web
- Track and field school record holder

💼 EXPERIENCE

National Security Agency – *Stokes Scholar*

Holder of TS//SCI clearance with special background investigation and polygraph

Summer 2015 – *Trusted Systems*

- Designed and implemented a software keyboard for Android devices that operates in the TrustZone secure environment
- Ported IMA (Integrity Measurement Architecture) to Android
  - Partially implemented the Trusted Platform Module (TPM) standard in the TrustZone secure environment
  - Developed a kernel driver to interface with the software TPM
  - Wrote a secure application to cryptographically sign the IMA measurement list
  - Created a system service enabling Android remote attestation

Summer 2014 – *Data Network Technologies*

- Designed and developed CNE operations tool for collection of computer-to-computer communications
- Designed and implemented secure communications protocol

Summer 2013 – *Remote & Deployed Operations*

- Developed Windows anti-malware software
  - Used infection markers to enable lightweight, fast, and accurate detection and neutralization of known malware
  - Heuristically analyzed and tagged potential infection markers
- Created an intuitive network traffic visualizer, allowing analysts to more easily notice anomalous behavior

</> SELECTED PROJECTS

April 2015	Created **espresso**, a deep learning framework designed to produce maintainable yet highly performant code compatible with Caffe.
Feb 2014	Created **MiniPlay**, a Chrome extension adding functionality to web music players with over 1000 daily users.
Aug 2013	Built a **dynamic threadpool** in modern C++11 to fill the gap in the C++ STL between `std::async` and `std::thread`.
2010-2012	Led development of **eva**, software for an autonomous submarine, incorporating computer vision, state machines, and control systems.

⅄ SKILLS

Languages	C++14 • C • Java • Javascript • Python • x86 • Rust
Technologies	Cryptosystem design • *nix kernel development • OpenMP/Open MPI • SIMD • CUDA/OpenCL • OpenCV • Embedded systems
Internet	HTML • SASS/CSS • Angular.js • Node.js • Socket.IO • jQuery • MongoDB