

# Jeff Chen

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## 🧰 EXPERIENCE

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### Blend Labs – Software Engineer

- Starting July 2016

### National Security Agency – Stokes Scholar

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

#### Trusted Systems

Summer 2015

- 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

#### Data Network Technologies

Summer 2014

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

#### Remote & Deployed Operations

Summer 2013

- 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

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## </> SELECTED PROJECTS

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

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## 🎓 EDUCATION

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

- Minor in Human-Computer Interaction
- Varsity track and field captain and school record holder

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## 🔧 SKILLS

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**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