

# Josh HOFING

## PERSONAL DATA

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WEBSITE: [hypersonic.me](http://hypersonic.me)  
GITHUB: [Hypersonic](https://github.com/Hypersonic)  
EMAIL: [self@hypersonic.me](mailto:self@hypersonic.me)

## WORK EXPERIENCE

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SUMMER 2016	<b>Open Source Intelligence Intern at PALO ALTO NETWORKS, <i>Unit 42</i></b> Developed internal tools to assist in analysis of public data breaches. Developed similarity metrics that ran on incoming data to find related breaches. Developed visualization utilities to help analysts more quickly quantify breach campaigns. Developed NLP software to extract interesting information from nonuniform input data.
SUMMER 2015	<b>Security Research Intern at BAE SYSTEMS, <i>Applied Intelligence</i></b> Developed lock-free data structures for use in highly-concurrent environments. Developed automated program-analysis capabilities to detect similarity between programs and known malware. Extended library support of internal Python interpreter with C extensions.

## EDUCATION

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2014-2018 (EXPECTED) B.S. in COMPUTER SCIENCE, **New York University**, Tandon School of Engineering  
2010-2014 **Stuyvesant High School**

## CTF

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### Organized

CSAW CTF 2016: Organizer and Challenge Lead.  
sCTF 2015 Q2, 2016 Q1: Problem Writer.

### Notable Placements

CSAW CTF Finals 2015: 9th Place (NYUSEC).  
Cyberseed 2016: 2nd Place (NYUSEC).  
Hack the Vote 2016: 10th Place (pdgn).

## PROJECTS

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### CYBERTRONIX-64K:

CSAW CTF Finals 2016 Problem.  
Custom computer architecture and a program written in it.  
Competitors had to write a disassembler based on an ISA manual and emulator.  
Then, they could reverse engineer the provided ROM.

### WTF.SH:

CSAW CTF Prelims 2016 Problem.  
Custom web server, written in Bash.  
Contained multiple vulnerabilities for competitors to find, incl. LFI, PrivEsc, and RCE.

### DISPATCH:

Reverse-engineering and Patching framework.  
Designed to support various projects at the OSIRIS Lab that needed a robust patching framework.

## PROGRAMMING LANGUAGES

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C C++ PYTHON D JAVASCRIPT JAVA BASH X86