

# Andrew Dutcher

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## Education

**University of California, Santa Barbara** -- Current Undergraduate, 3.9 GPA  
**Dos Pueblos High School** – 2014 Graduate, 4.6 GPA

## Technical Skills

**Security auditing** for all forms of software

**Reverse engineering** of binary code

**Linux Application** programming in C, C++, Python, Ruby, Node.js, Java

Particularly, mastery of **Python**, including **package distribution**

**Unix Server** Administration -- Experience in setup and administration of servers with Apache/Nginx, MySQL/Postgres, Docker, Kubernetes, Ansible etc.

**Web Development** – HTML/CSS/Javascript, PHP, CGI, Python, websockets

**Windows Application** programming in C#, C++, Java

**Android app** development

Fluency in writing x86, ARM, PowerPC, MIPS, and 65c816 **assembly**

## Professional Experience

- Paid undergraduate research position at UCSB **computer security research lab**, working under professor Giovanni Vigna in the fields of binary analysis and reverse engineering. Core developer on the **angr** binary analysis project. Player in the **Cyber Grand Challenge** on the lab's team Shellphish, winning 3<sup>rd</sup> place
- Employment by **family business** for web development and web malware removal, separately for design and programming of automotive diagnostics tools

## Publications

**SoK: (State of) The Art of War: Offensive Techniques in Binary Analysis**, IEEE Symposium on Security and Privacy 2016

**Driller: Augmenting Fuzzing Through Selective Symbolic Execution**, Network and Distributed System Security Symposium 2016

## Competitive Experience – Capture the Flag Competitions

**Organized** the UCSB iCTF with team Shellphish, 2014, 2016

**Qualified** and attended final rounds for DEFCON CTF on UCSB team Shellphish, many years

**Qualified** and attended final rounds for CSAW CTF team CTF, 2013, 2014, 2015, 2016

**Qualified** and attended final round for Codegate Junior individual CTF 2014 in Seoul, Korea

**First Place** Team Member in 2013 PicoCTF national high school hacking competition

## Additional resources

<http://github.com/rhelmot> - <http://angr.io> - <https://ctftime.org/team/285> - <http://bit.ly/IqT6zt>