

Michael Kranch

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EDUCATION

Princeton University, Princeton, New Jersey, USA

- Master of Science in Engineering (M.S.E.) in Computer Science Sep 2013 – Jun 2015
 - Cumulative GPA: 3.91
 - Thesis: Upgrading HTTPS in Mid-Air: An Empirical Study of Strict Transport Security and Key Pinning

United States Military Academy, West Point, New York, USA

- Bachelor of Science (B.S.) in Computer Science w/ Honors Jun 2004 – May 2008
 - Cumulative GPA: 3.45 / Major GPA: 3.59

PUBLICATIONS

Conferences

- [4] D. Harvie, T. Estes, and M. Kranch, “Crafting a Foundation for Computing Majors,” in *ACM’s Special Interest Group on Information Technology Education (SIGITE’18)*, Fort Lauderdale, FL, USA, Oct 2018.
- [3] A. Reed and M. Kranch, “Identifying HTTPS-Protected Netflix Videos in Real-Time,” in *ACM Conference on Data and Application Security and Privacy (CODAPSY’17)*, Scottsdale, Arizona, USA, Mar 2017.
- [2] M. Kranch and J. Bonneau, “Upgrading HTTPS in Mid-Air: An Empirical Study of Strict Transport Security and Key Pinning,” in *The Network and Distributed System Security Symposium (NDSS’15)*, San Diego, California, USA, Feb 2015.
- [1] M. Kranch and R. Ragsdale, “Undetectable Monitoring in a Fully-Virtualized Environment - A Continuation of the HAL Keystroke Logger,” in *42st Hawaii International International Conference on Systems Science (HICSS’09)*, Waikoloa, Hawaii, USA, Jan 2009.

PROFESSIONAL EXPERIENCE

United States Military Academy, Instructor, West Point, New York, USA

Jun 2013 – Now

Electrical Engineering and Computer Science Department

- **Course Director**
 - CS485 - Special Topics in Computer Science: Ethical Hacking (AY18-2, AY17-2)
 - CS482 - Cyber Security Engineering (AY18-2, AY18-1)
- **Instructor**
 - CS485 - Special Topics in Computer Science: Ethical Hacking (AY18-2, AY17-2)
 - CS482 - Cyber Security Engineering (AY18-2, AY18-1, AY17-2, AY17-1)
 - IT350 - Network Engineering and Management (AY18-1)
 - CY355 - Cyber Foundations: Computing (AY17-1)
 - IT105 - Introduction to Computing and Information Technology (AY17-2, AY16-2, AY16-1)
- **Coach**
 - Cadet Competitive Cyber Team (AY18-2, AY18-1, AY17-2, AY17-1)
 - Collegiate Cyber Defense Competition (AY18-2)
 - NSA Cyber Exercise (AY18-2) and Cyber Defense Exercise (AY17-2, AY17-1)

United States Army Officer

Aug 2001 – Now

- **Cyber Operations Officer** Dec 2015 – Now
 - Lead, plan, and direct both defensive and offensive cyberspace maneuvers and effects operations in and through the cyberspace domain.
- **Signal Corps Officer** May 2008 – Dec 2015
 - Provide seamless, secure, and robust communications networks and information services support at all levels from sustaining military bases to forward-deployed fighting forces. Lead and manage Signal forces and operations that enable globally-disperse network-centric warfare.
- **Explosive Ordnance Disposal Technician** Aug 2001 – Jun 2003
 - Research and identify ordnance, assist in the preparation and use of advance robotics, and explosively disposing of hazardous ordnance and improvised explosive devices (IEDs).

**AWARDS &
HONORS**

Academic Awards and Honors

- USMA Clark K. Ray Award for 2018 (Computer Science Instructor of the Year)
- Facebook Internship - Summer 2017 (worked in e-crime team)
- CODASPY'17 Best Poster (Identifying HTTPS-Protected Netflix Videos in Real-Time)
- Army Advanced Civil Schooling Scholarship (Princeton University 2013-2015)
- Upsilon Pi Epsilon (National Honor Society)
- RIT IEEE Design Competition 2008 Honorable Mention (HAL Keystroke Logger)
- USMA Dr. George M. Krembs Innovation Award (HAL Keystroke Logger)

Military Awards and Honors

- Signal Regimental Association's Bronze Order of Mercury
- Army's Signal Captain's Career Course Distinguished Honor Graduate
- Bronze Star Medal
- Meritorious Service Medal

**PROFESSIONAL
CERTIFICATIONS**

Offensive Security Certified Professional (OSCP #22211)
GIAC Exploit Researcher and Advanced Penetration Tester (GXPN Analyst #1451)

[CV compiled on 2018-10-01 for mjkranch.com]