

Viet Q. Le

U.S. Citizen; DoD Secret Clearable

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Objective:

I am a Federal Cyber Service: Scholarship for Service (SFS) student seeking an internship for Summer 2012 in the information assurance field. My interests include malware analysis, digital forensics, incident response, software engineering, and mathematical modeling.

Education:

New Mexico Institute of Mining and Technology

- **BS in Computer Science** with emphasis on Information Security
December 2011
- **BS in Mathematics** with emphasis on Statistics and Operations Research
December 2011
- **MS in Computer Science** – *Expected May 2013*

Relevant Work Experience:

- MITRE Corporation
McLean, VA; (May 2011 – August 2011)
Information Security Engineer/Scientist (Summer Intern)
 - Assessed and Triaged servers and laptops to determine if they have been compromised.
 - Proposed and developed standardized technique to detect rootkits on Windows based systems using WinDbg and Volatility.
 - Collected, analyzed, and established a baseline for TPM platform configuration registers (PCR) values of company laptops to detect tampered BIOS's.
 - As part of the intern community service committee, organized a volunteer event to assist counselors at a camp for autistic children.
- Defense Information Systems Agency (DISA) – Field Security Operations (FSO)
Chambersburg, PA; (May 2010 – May 2011)
Computer Scientist (Student Trainee – SCEP)
 - As a member of the Network Capabilities Team, provided technical network security expertise to non-technical project managers.
 - Developed operational use cases to test and demonstrate the capabilities of network vulnerability scanning tools for use within the DoD.
 - Researched and reviewed network mapping tools for possible usage within the DoD.
 - Certified to inspect network topologies and configurations for security weaknesses.
- New Mexico Institute of Mining and Technology – Department of Computer Science and Engineering
Socorro, NM; (May 2009 – May 2010)
Programmer for Parallel Digital Forensics (PDF) Project
 - Programmed Python module to validate, parse, and transform XML to XHTML.
 - Integrated, tested, and debugged modules written by other project members.

Research Projects:

- **Modeling the evolution and spread of computer viruses across the Internet**
Using a hybrid dynamical system, this model attempts to simulate a computer virus as it spreads across the Internet. The project models the co-evolution of viruses and mitigation tactics. The model was written in Matlab.
- **Simulation of exploitations within a network**
Written in Java, this project simulates an attack on a computer network. Users can configure the simulator to use customized exploits with different characteristics and also tailor the network by adding variety of network devices, including high value targets and intrusion detection systems. Visualization for the model was implemented using ARENA.
- **Secure Instant Messenger System**
Managed a team to implement an instant messenger system that uses public key infrastructure (PKI) to authenticate user identities and transport layer security (TLS) to ensure message security. The instant messenger system is a decentralized model to reduce single point of attack failures.
- **RBAC in DAC**
Implemented a filesystem in userspace (FUSE) that utilizes role based access control (RBAC) within an existing discretionary access control (DAC) file system. The project was implemented in Ruby and uses MySQL as a backend to manage roles and access control.
- **Toolkit for Differential and Linear Cryptanalysis**
As a member of a team, implemented a Python module to perform differential and linear cryptanalysis attacks on block ciphers. The toolkit was successfully demonstrated on a simplified version of DES.
- **An Architecture for Wireless Network Intrusion Detection Systems**
Researched and proposed an architecture for a distributed wireless intrusion detection system (WIDS). The WIDS took a hybrid approach, utilizing both anomaly based and rule based intrusion detection. The system took advantage of sensors and thin clients communicating with a server to reduce cost and power consumption.

Skills:

- **Programming Languages:**
Java, C, C++, Python, Ruby, Matlab, Maple, R
- **Software:**
The Sleuth Kit/Autopsy, EnCase, Metasploit, Nessus, Retina, IPSonar, IDA Pro, WinDbg, Volatility
- **Operating Systems:**
Linux (Debian, Ubuntu, Gentoo), Microsoft Windows (NT, 2000, XP, Server 2003)
- **Communication:**
Technical Writing, Visual Communication, Intercultural Communication, Organizational Communication, Public and Interpersonal Speaking

Honors and Awards:

- Federal Cyber Service: Scholarship for Service (SFS) recipient (2009-present)