

Matthew C. Pettersson

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OBJECTIVE

Seeking a cyber-security or senior software engineer position in a truly innovative, upbeat, and reputable company.

EDUCATION

Master of Science in Computer Science University of Texas at Dallas, Richardson, TX	Dec. 2013
Bachelor of Science in Computer Science University of Texas at Dallas, Richardson, TX	Dec. 2011
Associates of Science Collin County Community College, Plano, TX	Dec. 2006

TECHNICAL SKILLS

Languages: Java, C, C++, Python, HTML, CSS, JavaScript, SQL, Prolog, LaTeX, and OCaml.

Tools: Eclipse, Visual Studio, Microsoft Windows, Unix, Linux, Mac, Cisco IOS, Rally, VMware, GDB, Wireshark, IDA, and OllyDbg.

Miscellaneous: Agile Software Development, UML Modeling, Lambda Calculus, REST, SOAP, JSON, XML, and OOP.

EMPLOYMENT EXPERIENCE

Software Engineer III, Cisco Systems, Richardson, TX	May 2014 – Current
<ul style="list-style-type: none">Lead developer for a Cisco internal, Java-based, <i>Intelligent Performance Automation Framework (IPAF)</i>; a framework to aid in the performance evaluation and development of the <i>Cisco Unified Call Manager (CUCM)</i>.Provide analysis, architectural design, documentation, specifications, testing, implementation, and maintenance of the <i>Intelligent Performance Automated Framework (IPAF)</i>.Created a user friendly call generator GUI, in Java, for the <i>Cisco Unified Call Manager (CUCM)</i>.	
Software Engineer II, Cisco Systems, Richardson, TX	Mar. 2013 – May 2014
<ul style="list-style-type: none">Developed a JSON-based configuration for the <i>Intelligent Performance Automated Framework (IPAF)</i>, establishing a generic configuration file, or format, to greatly enhance end user experience and efficiency.Wrote Python, TCL, Bash, and expect scripts to control and emulate A/V traffic for the <i>Cisco Unified Call Manager (CUCM)</i>.	
Intern, Cisco Systems, Richardson, TX	Oct. 2010 – Mar. 2013
<ul style="list-style-type: none">Configured lab and development servers, networks, network storage, VPN, as well as physical and Wi-Fi network installation.Tested Cisco UC320W software and hardware in various custom network topologies and in conjunction with other technologies.	
Veterinarian Technician, Virginia Parkway Pet Hospital, McKinney, TX	Aug. 2006 – Apr. 2008, June 2009 – Oct. 2010
<ul style="list-style-type: none">Office IT administrator, maintained surgical equipment, and maintained medical hardware.Recruit, interview, train, and managed kennel staff.	

RELEVANT PROJECTS

Security & Pen Testing Labs

- Virtual VMware labs running on both Mac and Windows hardware, as well as, a physical lab consisting of a half server rack of servers, switches, routers, NAS, and firewalls; used as a penetration, learning, and development testing network.

REINSVerifier

<https://mpettersson@bitbucket.org/mpettersson/reinsverifier.git>

- Work towards the formal verification of a static *complex instruction set computing (CISC)* native code *rewriting and in-lining system (REINS)* algorithm via mathematical and logical theorems, in the Coq proof language.

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- Created, maintain, and actively develop a personal website that focuses on programming and security.

RELEVANT COURSEWORK

Adv. Programming Languages	Adv. Computer Networks	Introduction to Cryptography
Adv. Algorithm Design & Analysis	Network Security	C & C++ in a Unix Environment
Language Based Security	Computer Architecture	Database Design
Computer Science I & II	Adv. Operating Systems	Security Critical Infrastructure

OTHER EXPERIENCE & HOBBIES

- Learned the Tagalog language during missionary service and relief work in the Philippines, Sept. 2001 to Oct. 2003.
- Eagle Scout in the *Boy Scouts of America (BSA)*.
- Weight lifting/training, running, and cycling.
- Capture the Flag (CTF)* events, penetration testing, binary reversing, and digital forensics.