

LUKE ALEC DESHOTELS

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EDUCATION

North Carolina State University, Raleigh, NC
Expected PhD, Computer Science, May 2018 G.P.A. 4.0/4.0
Research Focus - Modern Operating System Security, Adviser - William Enck

University of Louisiana, Lafayette, LA
Master of Science, Computer Science, May 2013, Graduate G.P.A. 3.9/4.0
Bachelor of Science, Computer Science, December 2010, G.P.A. 3.7/4.0
Outstanding Graduate of the UL Lafayette Department of Sciences
Master's Graduate Fellowship University of Louisiana at Lafayette

EXPERIENCE

Interim Engineer Intern, Qualcomm, San Diego Summers 2015-2016

Custom LLVM optimizations to add security checks into executables during compilation
Automated detection and replacement of function pointer calls in C code
Systematic detection and evaluation of flaws in static analysis tools
Automatic static analysis for comparing modem binaries at function level granularity
Deaf assistance technology awarded "Life Saving Hack" at Qualcomm's HackMobile hackathon

Research Assistantships

iOS Reverse Engineering - William Enck - NCSU	May 2014-Present
Runtime Security for iOS - Ahmad-Reza Sadeghi - TU Darmstadt	Jan 2015-Feb 2015
Sensory Malware Development and Prevention - Purush Iyer - NCSU	Jan 2014-May 2014
Malware Detection and Analysis - Arun Lakhotia - UL Lafayette	May 2011-Aug 2013

Projects and Skills

Automated detection of flaws in iOS sandbox profiles	Prolog, Ply (Lex and Yacc)
Large scale reverse engineering of iOS frameworks	IDA Scripting, Obj-C Internals
Run-Time memory modification of iOS applications	GDB, IDA
Threading library, shell, sockets, and RAM filesystem	C, FUSE, System Services
Ultrasonic modem for Android devices	Android, Signal Processing
Linux kernel extension for secure file path resolution	C, Kernel Programming
Automated familial classification of Android malware	Smali, Gephi, Cluto, Python
GUI that facilitates programming competitions	Networking, Multi-Threading
AI that plays competitive StarCraft	C++, Visual Studio, BWAPI
Evaluation of steganographic channels in World of Warcraft	Lua Scripting
Implemented an x86 compiler	Standard ML, Compiler Design
Detection of cryptographic functions in disassembly	IDA, RapidMiner, Data Analysis
Automated prediction of human gaze allocation	Matlab, Computer Vision
Parallelized Game of Life	OpenCL, GPGPU, C

Activities

Won \$10,000 as best student team at 2012 Cajun Codefest
President of the ACM alpha student chapter Aug 2011 to May 2012
TigerTrap intercollegiate capture the flag cybersecurity exercise 2011
State champion team for IBM International Collegiate Programming Contest 2010
Completed over 1,800 hours of community service through AmeriCorps Aug 2008 to Jun 2010