DAVID SOLODUKHIN

914-564-8872 | DAVID.SOLODUKHIN@GATECH.EDU

EDUCATION

Georgia Institute of Technology - Atlanta, GA **Graduating Dec 2019**
Candidate for B.S. in Computer Science
GPA: 3.96/4.0

EXPERIENCE

Prudential Financial – Newark, NJ **May 2018 – August 2018**
Software Engineer Intern, Enterprise Services & Systems
- ❖ Modernized an enterprise-wide Financial Database Management web application to be able to query **millions of records** every hour. Added frontend features using reactjs and rewrote Struts2 functionality in Spring Web.
  (Spring Web/Boot, JSP, Strut2, Maven, Gradle, Java 8, Javascript, Reactjs, ES6).
- ❖ Reduced daily build time by **5 hours** with multi-module Maven build scripts that automate building of Oracle ADF applications.
- ❖ Redeployed several applications from **Oracle Weblogic** to **JBoss Wildfly** servers leading to more stable, modern and responsive development.
- ❖ Agile Methodology: paired programming, story writing, and extensive testing [TDD], including unit, integration, e2e, mutation, and performance (Junit, TestComplete, Jenkins)

Institute for Information Security & Privacy @ Georgia Tech **October 2017 – February 2018**
Undergraduate Research Assistant
- ❖ Designed and evaluated new anti-fuzzing techniques to slow down modern fuzzers and protect software from malicious fuzzing.
- ❖ Wrote LLVM passes in **C++** to implement anti-fuzzing techniques in existing Linux executables.
- ❖ Created **Python** scripts to efficiently automate unit testing and plot fuzzing statistics.
- ❖ Revised and edited final paper which was submitted to USENIX and Black Hat.

Advise Technologies – New York City, NY **June 2016 – August 2016**
Software Engineer Intern, CI and QA Team
- ❖ Designed a continuous integration system for the development team that automatically pulled code from repositories, compiled projects, ran regression and unit tests and emailed results to team leads.
- ❖ Designed **Java** plugins for TeamCity CI server which added automation functionality such as email alerts and detailed logging.
- ❖ Scripted custom regression tests in Jscript using the TestComplete testing suite.

PROJECTS

DAVID-SOLODUKHIN.GITHUB.IO
- ❖ **Linux Kernel Modules** (kernel v4.15.18): Developed a module which starts a UDP server process within the kernel for transmitting O.S. filesystem, process stats. Implemented a kernel module for network traffic artificial throttling and packet redirect. Modules were written in C.
- ❖ **Linux Kernel Hypervisor(KVM) Scheduler**: Wrote a 2000 line scheduler that load balances up to 24 virtual machines on a multi core processor based on virtual cpu and memory load, resulting in **20% speedup** compared to native scheduler (C,C++)
- ❖ **Foxmembeta.cf** – Found RPC endpoint exploit in Wolfram Alpha online service to get access to premium features for free. Created popular website documenting the exploit. Aided Wolfram Alpha team in patching the exploit.

SKILLS

Languages: Java, C, C++, Javascript, Python, (PL)SQL
Testing: Selenium, TeamCity, TestComplete, Junit
Libraries & Tools: Reactjs, Maven, Gradle, Node.js, Socket.io, JQuery, Android SDK, LLVM(Clang), Git, Mercurial, JSP, Oracle Weblogic, Struts2, Spring Web, KVM, QEMU, libvirt, Bash
Security: Burp Suite, IDA, radare2, pentesting, exploit development, AD, Samba, privilege esc, Wireshark, Kali Linux, hashcat, Hydra, cryptography, Kerberos, vulnerability analysis, HTB, Pentestit, x86/64 ISA, ROP, Metasploit framework, Reverse Engineering, O.S. security, Kernel Development, afl, hongfuzz, wfuzz.
Courses: Information Security Lab, Network Structure, Advanced O.S. Development, Information Networks
Foreign Language: Russian; Native Fluency

LEADERSHIP/GROUPS

Grey Hat Security: CTF team, HackTheBox(Top 10%: S18); Linux Users Group; Phi Kappa Theta (ΓΤ) Fraternity– I.T. Chair