JOHN R. LAMBERT

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LANGUAGES & TOOLS

- C/C++
- Java
- Python
- x86 Assembly
- Docker
- Cloud (AWS/GCP)
- Git
- Ghidra/IDA

WORK HISTORY

Software Engineer|*Workiva - Denver, CO* **May 2021 - Present**

- Created a load testing platform using Python (Locust) to isolate application performance bottlenecks at scale.
- Improved observability by implementing New Relic monitoring on DynamoDB and Java Flight Recorder metrics.
- Developed document processing automation software including backend APIs and email notification services using Python, Java Spring, AWS, and a variation of Apache Thrift.

Software Engineer|*Principal Financial Group - Des Moines, IA* **May 2020 - May 2021**

- Utilized test-driven development to develop AWS Lambda applications supporting paid family medical leave benefits to successfully retain customers adhering to state mandated requirements.
- Migrated legacy Java Spring applications to AWS Lambda using NodeJS/TypeScript and Serverless.
- Maintained CI/CD development pipeline using Bamboo, CircleCI, and GitHub webhooks.

Software Engineer Intern|*Principal Financial Group - Des Moines, IA* **May 2019 - Aug 2019**

- Automated BitBucket repository maintenance processes using Java and Jenkins.
- Constructed Docker deployment pipeline using XLRelease, Jenkins, and Python/Cython.
- **3rd place in 2019 Intern Code Jam:** Web application hosted on GCP App Engine leveraging Python Flask, JavaScript, and Neo4j to manage university recruitment events and interfaced with Google Maps API to serve event location data.

Application Engineer| *Genesys - Indianapolis, IN* **Dec 2015 - May 2018**

- Overhauled infrastructure processes resulting in expense savings of ~$1 million dollars leveraging PowerShell automation.
- Conducted IT infrastructure administration in accordance with ITIL practices and served on the change management advisory board.

Senior System Engineer| *Genesys - Indianapolis, IN* **May 2014 - Dec 2015**

- Provided on-site consultation and root cause analysis of critical system failures on Windows servers.
- Reformed existing technical documentation and assisted with Knowledge Base article creation.

EDUCATION

M.S. Computer Science - *Georgia Institute of Technology - GPA 4.0* **Aug 2020 - Present**

Operating Systems - Multi-threading, RPCs, shared memory, CPU scheduling, and socket programming.

Malware Analysis - Static and dynamic techniques and their application in modern automated malware analysis.

Binary Exploitation - Shellcoding, buffer overflows, format string vulnerabilities, NX/ASLR/Canary bypassing.

B.S. Computer Science - *Oregon State University - GPA 3.98* **Awarded: June 2020**

B.S. Computer Technology - *Ball State University* **Awarded: May 2014**

PROJECTS

- **Assault Cube Exploit DLL and Injector** to deliver malicious code to a Windows game process to provide aimbot, ESP, and other capabilities. *(C++, x86 assembly, Ghidra, Cheat Engine, Windows APIs)*
- **Reverse Engineering of APT Malware** using manual and automated techniques in Ghidra/Pin to construct static and dynamic control flow graphs, and data dependencies graphs from def-use chains.