

# CHRISTOPHER M. HORLICK

## Senior Software Developer

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📍 Madison, AL, United States of America

## EXPERIENCE

### C++ Senior Software Developer

#### Global Payments, Inc

📅 09/2020 - 09/2024 📍 Remote (Atlanta, GA)

- Implemented ISO8583 Compliance Changes for Visa, Mastercard, Diners, and other banking networks
- Successfully transitioned code base and databases, improving version control efficiency using custom-built binaries (and python modules) decreasing deployment of code updates to only minutes
- Led "tiger team" during SVN to git transition
- Developed REST API for new payment platform
- Contributed to code quality through thorough code reviews
- Developed front-end using TypeScript and JavaScript
- Automated tasks using Python and Bash scripting

### C++ Senior Software Developer

#### Science Applications International Corporation

📅 02/2019 - 09/2020 📍 Huntsville, AL

- Reduced incorrect and inconsistencies in NASA application inventory across federated footprint during AWS and cloud migration
- Led team responsible for custom-built web application of inventory management of NASA federated applications
- Ingestion of large scale datasets from automated scanners and Kubernetes instances
- Pen testing of NASA facilities and applications

### Web Application Developer

#### University of Alabama Huntsville Campus

📅 01/2018 - 01/2019 📍 Huntsville, AL

- Successfully managed data warehousing project for NASA Earth science constellation, improving data availability
- Supported the development and maintenance of web applications using JavaScript and Node.js. Worked on debugging and testing Node.js applications to ensure robust performance
- Built and deployed applications for AWS cloud infrastructure
- Successfully migrated on-prem data warehouse (~PB) into AWS cloud

### C++ Senior Software Developer

#### Science Applications International Corporation

📅 01/2016 - 01/2018 📍 Huntsville, AL

- Expanded initial C++ development responsibilities into a role that also worked with a variety their system-level scripting languages and tools
- Assisted with capturing stakeholder interests and documenting them into design requirements
- Responsible for implementing software solutions that match design requirements, and pass verification and validation criteria
- Update, correct, and maintain software design documents
- Provide input to technical leads regarding estimates of time projections and project requirements

## SUMMARY

Senior Software Developer with a comprehensive background in various aspects of software development. Expertise includes:

- **Software Development Lifecycle:** Proficient in the entire lifecycle of software development, encompassing design, development, architecture specification, requirements analysis, and onsite customer support. Experienced in both application and kernel space development.
- **Software Engineering and Architecture:** Skilled in software engineering principles, design and architecture development, and detailed documentation of complex systems.
- **Testing and Evaluation:** Experienced in software maintenance and test support, including Testing & Evaluation (T&E) with hardware in the loop (HITL).
- **Tool chain Development:** Proficient in simulation and analysis tool chain development across multiple coordinate systems.
- **Cross-Platform Development:** Adept at designing, developing, and maintaining general applications across various real-time operating systems, including both user interface-based applications and background servers/daemons.
- Developed custom APIs for a variety of industries

## EDUCATION

### Electrical Engineering

#### The University of Alabama in Huntsville

📅 01/2005

### Master's of Software Engineering

#### Regis University

📅 01/2017

### Bachelor's in Computer Science

#### Athens State University

📅 01/2014

### PhD of Computer Engineering

#### The University of Alabama in Huntsville

📅 09/2022 - Present

## EXPERIENCE

### Java and Angular Developer

#### Geeks And Nerds

01/2014 - 01/2016 Huntsville, AL

- Developed enterprise multi tenant application based on Angular front end and Spring boot backend including RESTful APIs
- Linux based C++ and Qt software development to support the Army RTC in their Testing and Evaluation mission
- Linux/tomcat web based java development using Angular, Spring, Postgres and MySQL
- Worked with customer and other engineering team members to capture requirements and design and develop T&E tools
- Made heavy use of TSPI, TENA, SIMDIS, and MIL-STD-1553 protocols
- Doxygen, markdown, asciidoc and latex documentation engines (Java and C++)
- Git code version system used in house

### Software and Design Engineer

#### Independent Contracting

01/2018 - 01/2012 Various Remote Locations

- Responsible for independent software development, user interface design principles, and requirement engineering in various contexts
- Completed both independent and group projects involving web and C/C++ development both in the application and kernel space
- Used git and SVN code version depending on customer preference
- Used Eclipse IDE for customers
- Used VNC to screen share and work with customers, troubleshoot systems and remotely administer networked machines
- Doxygen, markdown, asciidoc and latex documentation engines for Java and C++
- Created cloud storage based solution for startup utilizing blockchain technology

### Software Engineer

#### Pikewerks

01/2009 - 01/2010 Madison, AL

- Linux kernel software development heavily focused on networking capabilities
- This was research-based development often done in a secure SCIF software lab as part of research for AFRL done on SBIR contract vehicles
- Worked with git and SVN code version systems
- Helped roll out redmine and GitLab tools across enterprise
- Used python and PyQt for rapid development of quick research tools
- Doxygen, markdown, asciidoc and latex documentation engines (Java and C++)

### Software Engineer

#### Fiscal Systems

01/2008 - 01/2009 Madison, AL

- Designed and developed Linux and windows based graphical software applications and Linux based network centric server daemons
- Assisted in debug and troubleshooting customer problems
- Worked directly with debuggers, packet capture tools (tcpdump and Wireshark), and stack analysis software
- Established internal unit testing best practices using CppUnit testing framework
- Implemented doxygen documentation process and procedure
- CVS, SVN and git were all used across the organization in various capacities

## KEY ACHIEVEMENTS



#### S3I Challenge Coin Recipient

As recognition for outstanding work my team was presented with challenge coins by US Military.



#### SAIC Fellow

Worked with incoming students to help train and bring skills up to industry standards.

## LANGUAGES

c

Native



c++

Native



java

Native



bash

Native



javascript

Native



python

Native



typescript

Proficient



php

Proficient



rust

Intermediate



go

Beginner



## PASSIONS



#### Software Craftsmanship



#### Artificial Intelligence



#### Generative AI



#### Transaction Simulation



#### Cybersecurity



#### Drone Swarms



#### Mathematics



#### Futurism



#### Philosophy

## EXPERIENCE

### IT Support Technician

#### Digium

01/2006 - 01/2008    Madison, AL

- Tier 2 Tech
- Troubleshooted customer installation and maintenance issues
- Tech support for Linux based enterprise telephony customers
- Assisted with architecture, design, development, and configuration
- Developed the administration of their Linux based telephony servers

## SKILLS

|                     |                                    |                    |         |
|---------------------|------------------------------------|--------------------|---------|
| Android Development |                                    | Angular            |         |
| angularjs           | AWS                                | AWS Cloud          |         |
| Bash                | Generative Artificial Intelligence |                    |         |
| bootstrap           | Cloud Infrastructure               |                    |         |
| Configuration       |                                    | CSS                |         |
| Data Warehousing    |                                    | Debugging          |         |
| Django              | Eclipse                            | GCC                | Git     |
| Gitlab              | Gradle                             | HTML               |         |
| Interface Design    |                                    | Javascript         | JQuery  |
| Latex               | Linux                              | Prompt Engineering |         |
| Markdown            | Maven                              | Visual Code        |         |
| MySQL               | PostgresSQL                        | PyQt               |         |
| Redmine             | REST                               | RTC                | doxygen |
| sphinx              | embedded development               |                    |         |
| pytorch             | API                                | Kali               |         |