# Stephen King

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### EXPERIENCE

## Northrop Grumman

Chandler, AZ

Senior Principal Software Engineer

February 2018- Present

- Migrated 32 bit C++98 commodity control application to use modern toolset (64 bit C++17 and cmake)
- Provided on-site console and remote support for several Antares ISS Commercial Resupply launches
- Transitioned several internal projects to utilize Continuous Improvement (CI) pipelines in GitLab
- Mentored coworkers through transition to git and other technical issues
- Created and modified Java applications and configuration files for mission specific ground support equipment
- Created and modified software design documentation and other technical documentation
- Peer Reviewed coworkers merge requests, software design, and technical documentation
- Wrote, optimized, and used Python scripts for log analysis
- Used Valgrind and gdb to diagnose and remedy memory/ multithreading bugs
- Configured Linux servers and used various utilities for software development, test, and launch support
- Led Development of PLC based commodity control system for OmegaA Launch Vehicle

## Honda Engineering N.A.

Marysville, OH

Associate Engineer, Electrical Design

Sep. 2014 - Jan 2018

- Worked on automation projects for robotic cells with multidisciplinary teams
- Gathered data for system specifications
- Implemented electrical hardware designs leveraging technologies such as AutoCAD Electrical to create system layouts, schematics and panel designs
- Designed and wrote software for both standard and safety PLCs
- Led system integration of equipment and ensured equipment performance during production

#### Morgan Engineering

Alliance, OH

Automation Engineer

June 2012 - August 2014

- Designed electrical systems including drawings in AutoCAD/AutoCAD Electrical, selection of components for electrical hardware and Programmable Logic Controllers
- Programmed Siemens and Rockwell PLCs and drives
- Commissioned Paper Handling / roller machines
- Programmed fully autonomous coil handling crane
- Worked on vision system using OpenCV and C++

## EDUCATION

#### **Arizona State University**

Tempe, AZ

Master of Computer Science

Dec 2020

Technical Electives: Artificial Intelligence, Deep Learning, Applied Cryptography, Data Mining

#### The University of Akron

Akron, OH

Bachelor of Science in Electrical Engineering

May 2012

 $Mathematics\ Minor$ 

Technical Electives: Analog and Digital Controls, Embedded Systems Interfacing, Active Circuits, Antenna Theory

## TECHNICAL SKILLS

Languages: C++, C, Java, Python, SQL (Postgres), Bash, Perl, TCL, MATLAB, XML, IATEX

Test Frameworks: JUnit, GoogleTest, PyTest Libraries: pandas, NumPy, Matplotlib, PyTorch

Developer Tools: Git, Jira, Confluence, Docker/Podman, Kubernetes, Anaconda, cmake, gdb, Valgrind, SVN

IDEs: VS Code, PyCharm, IntelliJ, Eclipse, XCode, Vim

Industrial Automation: PLCs, RSLogix 5000, Siemens Step 7, TIA Portal, PCS7, Ladder Logic, Structured Text,

Industrial Communication (ProfiNet, ProfiBus, Ethernet/IP, DeviceNet), AutoCAD

Engineering Equipment: Oscilloscope, Function Generator, Mutlimeter

Other: Artificial Intelligence and Machine Learning, Data Structures and Algorithms, Linux, Technical Documentation, TDD, OOP / Design Patterns, CI/CD, Agile Development