JOSHUA ZENG

Principal Software Engineer at Northrop Grumman

CONTACT

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SKILLS

SOFTWARE

- C, C++, C#
- Python, Java
- HTML, CSS, JS
- G dataflow, Ansible

FRAMEWORKS/PLATFORMS

- Android Studio
- Django, Flask
- Winforms, WPF, .NET
- MATLAB, LabVIEW
- Docker
- TeamCity, Jenkins
- Fortify, SonarQube
- Tableau, JasperSoft

COURSEWORK

- Data Structures, OOP, Design Patterns, Architecture
- Machine Learning, Data Analysis
- Health informatics
- Networking, Protocols

HARDWARE/SYSTEMS

- Rapid Prototyping, Laser Cutting, 3-D Modelling
- Arduino, Raspberry Pi
- SOLIDWORKS, Autodesk Fusion, Inkscape
- Oscilloscope, Signal Generator

CERTIFICATIONS

- **CompTIA** Security+ ID COMP001021670668
- **National Instruments** CLAD 100-318-11077

EDUCATION

M.S. Computer Science; GPA: 4.0/4.0
Georgia Institute of Technology | *Aug 2020 – Present*

B.S. Electrical and Computer Engineer with Software Specialization
University of California, San Diego | *Sept 2014 – June 2018*

CAREER EXPERIENCE

Principal Software Engineer, Northrop Grumman — *Aug 2021–Present*
Software Engineer II, Northrop Grumman — *Oct 2019–Aug 2021*

- Developed and maintaining C#/.NET internal test tool web app Win/Linux installer; maintaining Docker setup for internal tool
- Maintaining internal test tool web app in Python and Flask
- C#/.NET/WPF Win apps to batch create installers and deploy onto Artifactory; Django web app for CD on VM pools
- Designed product stability Win app using C# and Selenium
- CI/CD pipelines in Teamcity, Jenkins, Bamboo; IaC Ansible

Software Engineer, BAE Systems — *Aug 2018–Oct 2019*

- Implemented iSCSI server in C++ from baseline C# model as a co-leader; utilized network, multithread concepts; created Win packet comparison tool using C# and .NET
- Designed Bomb Armament Tester with integration team; created test sets electrical designs; developed data analysis tools in C#
- Designed port security app in C++ with drivers interfacing with PnP

Software Engineer Temp, Qualcomm | Manpower — *Mar–July 2018*

- Developed C#/.NET Win tool for camera AF and AEC data modeling and parameter editing
- Simulated camera's focus parameters to analyze lens movement convergence; created XML editor to tune camera parameters

Camera Test Engineer Temp, Google | Adecco — *June–Sept 2017*, *June–Sept 2016*

- Developed Python Win tool using OpenCV & wxPython to auto detect and analyze Macbeth chart for camera IQ evaluation
- Developed camera tuning parameter parser in C
- Conducted 3A and LED image quality tests; video quality tests with EiS; simulation and tuning software to identify camera bugs

PROJECTS

Autonomous Prototyped Walker — *Mar–June 2018*

- Designed autonomous system to navigate to a signaled location; implemented A* algorithm and 3D mapping (LiDAR) with Python

Autonomous Robotic Arm — *Nov–Dec 2017*

- Implemented voice recognition commands, servo mapping movement, image processing for automatic object pickup in Python using OpenCV and Flask
- Designed robotic arm using SOLIDWORKS and Inkscape