Yu "Jason" Zheng

SYSTEMS ENGINEER

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EDUCATION

Software Engineering Coding Bootcamp

App Academy

Jan 2025

Master of Science

Systems Engineering

George Washington University

May 2021

Bachelor of Science

Mechanical Engineering

Rutgers University

October 2011

CREDENTIALS

SECURITY CLEARANCE

Active DoD Secret

(2018-current)

SKILLS

Collaboration

Communication

Problem Solving

Problem Analysis

Rational DOORS

UML / SysML

Microsoft Suite

CAD modeling

JavaScript

Python

SQL

HTML/CSS

Agile Development

Software Testing

Red Hat Enterprise Linux

AWARDS/ CERTIFICATIONS

TIMELY ACHIEVEMENT AWARD

Huntington Ingalls Industries (2018)

PRODUCT LIFECYCLE MANAGEMENT CERTIFICATE

Purdue University (2018)

LEADERSHIP

ASIAN (Asian Shipbuilders Including All Nationalities)

Director of Education & Skills Development (2017), Webmaster (2018-2019)

SUMMARY

A strategic, results-oriented Systems Engineer with over 10 years of interdisciplinary engineering experience, specializing in the aerospace/defense industry and implementing available innovative leading technologies. Proven track record in leading multi-faceted initiatives throughout the full product lifecycle through cross-functional collaboration. Expertise in translating customer needs into user requirements, determining product specifications, modeling products, mitigating system risks, and performing comprehensive verification/validation testing. Recognized for exceptional problem-solving skills and a holistic approach to challenges, with the ability to thrive in fast-paced environments.

WORK EXPERIENCE

Senior Systems Sensor Engineer
May 2022 - Present

The Vertex Company   *New York, NY*

- Led a team of system engineers in the selection and integration of sensor upgrades to support the expansion or modernization of the Perimeter Intrusion Detection System (PIDS) at NY/NJ airports resulting in a 20% improvement in detection accuracy.
- Supported the maintenance team in troubleshooting issues with equipment outages including Pathfinder/Elta Radars, Video Motion Detection (VMD), Pan Tilt Zoom (PTZ)/ Fixed Cameras, and fence sensors reducing equipment downtime by 30%.
- As the primary Subject Matter Expert (SME), assist in the analysis and implementation of technical refresh activities including customer capability selloff/ reporting of changes to assigned subsystems, reducing nuisance alarm rate by 45%.
- Research and conducted trade studies on emerging wide area sensing technologies, resulting in the adoption of IP-based cameras and planned implementation of solid-state Unmanned Aerial Vehicle (UAV) detection-capable radars, enhancing systems capabilities.

Systems Engineer II/Senior Systems Engineer
October 2019 – May 2022

Raytheon Technologies   *Marlborough, MA*

- Led systems engineering support for air traffic control systems for the En Route Automation Modernization (ERAM) Program through the resolution of System Issues Group (SIG)/ Problem Report Engineering Direction (PRED) documents as the subsystem lead for Radar Surveillance Processing (SURV) through utilization of DOORS and ARTiSAN Studio. Aligned on target with 100% of milestone goals up to SIG software implementation by management and decomposition of requirements including concurrently supporting SIG papers as a coauthor and software tools subject matter expert.
- Drafted specifications to resolve Software Trouble Reports (STRs) by capturing development and systems issues into requirements, achieving a 40% reduction in resolution time through Linux/Unix shell scripting to simulate Standard Terminal Automation Replacement System's (STARS) integrated functionality.
- Developed Security Enhanced Linux (SELinux) policies to confine system processes in the targeted domain restricting access to directories and files, reducing security vulnerabilities for the Federal Aviation Administration (FAA).

IDS Systems Engineer II
April 2018 – October 2019

Newport News Shipbuilding – Huntington Ingalls Industries   *Newport News, VA*

- Pioneered the development of Integrated Digital Shipbuilding (IDS) next generation processes for Columbia and Virginia Class Submarines construction resulting in a 15% reduction in build time and a 20% increase in manufacturing efficiency.
- Identified use cases/requirements through the utilization of Agile software development for Integrated Product Development Environment (IPDE) Submarine engineering construction deliverables within the Siemens Teamcenter Unified Product Lifecycle Management (PLM) toolset, improving project alignment by 25%.
- Developed and implemented a comprehensive toolset for Data Transfers, Build Authority Deliverable Development, Manufacturing Digital Data, Work Completion Reporting, and Liaison Processes in accordance to the Interface Control Documents (ICD) through 10+ iterations of code implementation, resulting in a 25% improvement in process cycle time and a 20% reduction in configuration management errors.
- Maintained responsibility for adoption of end-to-end processes and streamlining of procedures within the department by documenting training material and coordinating procedural development to develop Functional Department SME's.
- Awarded timely achievement award (TAP award) 7 months into role for helping the department achieve scheduled milestones by taking over responsibilities for the Ingestion process of metadata and implementing new procedures within the department.

Mechanical Engineer I
February 2016 – April 2018

Newport News Shipbuilding – Huntington Ingalls Industries   *Newport News, VA*

- Investigated and resolved 100+ multi-discipline technical issues including construction support for submarine weapon systems, ensuring compliance with quality standards and on-time delivery.
- Successfully completed critical projects, including Vendor Information Requests (VIRs), Liaison Action Requests (LARs), Temporary Alterations (Temp Alts), and Inspection Reports (IRs), resulting in a 30% reduction in rework and a 25% decrease in project delays.
- Developed nuclear submarine (SSN) system knowledge through interaction with group/department system owners and tasks which reduce department overhead cost by over 30%.

Application Engineer
July 2013-December 2015

The Knotts Company   *Berkeley Heights, NJ*

- Provided expert application support for Omron Automation and Safety products including Industrial Components, Automation Systems, and Safety, resulting in a 30% increase in customer satisfactory and 18% growth in company revenue.
- Delivered programming support for 20+ clients, utilizing Ladder Logic and Omron's Automation Software to meet diverse automation needs, resulting in a 25% increase in vendor software adoption.
- Served as a technical resource showcasing in-depth knowledge and automation expertise in 100+ sales meetings, contributing to a 30% increase in client engagement and a 20% improvement in sales conversion rates.