James Hudgins

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Clearance-Level: Active DoD Secret Clearance

SYSTEM DESIGN & ENGINEERING

Mr. Hudgins is a driven System Design Engineer with over six years of experience in system design, software development, testing, certification, and functional audit support to several significant United States Navy submarine programs. As a System Design Engineer with Patrona Corporation, Mr. Hudgins translates his client's IT needs into executable plans by leveraging his systems engineering knowledge and design background. Mr. Hudgins is committed to solving problems even when presented with complex challenges introduced by working in unique Department of Defense (DoD) environments.

TECHNICAL SKILLS

SDLC Methods: Agile, Waterfall DevOps
Frontend: HTML 5, CSS 3, JavaScript, jQuery, Bootstrap, Foundations, Semantic, Bulma, React
Backend: Node.js, Express.js, SQL, Mysql, Mustache, Handlebars, Jade, mongoosejs, MongoDB, Bcrypt
Testing: Jest.js, Cucumber, Selenium, UFT, RFT
Deployment: Google Buckets, AWS EC2, Gradle
Other/Tools: GIT, VS Studio, Eclipse, Atom, CAD technologies, Teamcenter, NX, Microsoft office

WORK EXPERIENCE

Patrona Corporation **2018 - PRESENT**
System Design Engineer **Washington, DC**

Mr. Hudgins is the shipboard lead for the Integrated Product Development Environment (IPDE) program. He is responsible for rollout of IPDE data and required software delivered to Virginia and Columbia Class submarines on Consolidated Afloat Networks and Enterprise Services (CANES) platforms. Mr. Hudgins provides direct support to PMS397 IPDE Manager in efforts to implement major program development, deployment, and training initiatives that leverage program investments across multiple Navy submarine programs.

Key Responsibilities:

- Analyzes requirements, concepts of operation, and high-level architectures to develop system requirements specifications.
- Performs Application Integration (AI) of 3D viewing software on CANES afloat network and Navy C4I Navy/Marine Corps Intranet (NMCI) enterprise in accordance with respective Security Technical Implementation Guides (STIGs) and National Institute of Standards and Technology (NIST) standards.
- Provides executive-level IT strategy support to PMS397L Product Support Manager, providing industry foresight needed to ensure mission-ready systems.
- Facilitates program-level changes to manage risk, remove impediments, drive program-level continuous improvement, validate system characteristics, and enable early feedback.
- Writes correspondences that inform NUWC, SEA08, SSP, TRF, public shipyards, and other major stakeholders of programmatic decisions required to achieve strategic goals.
- Translates core architecture for business requirements into technical solutions through functional, performance, and reliability analysis using engineering models and techniques.
- Delivers large enterprise Information Technology products and services, leveraging knowledge of DoD Systems Engineering policies and processes.
- Develops solution architectures for IT support systems, translating complex concepts and solutions into documents required for certification and compliance (i.e. System Security Plan).

General Dynamics Electric Boat **2017- 2018**
Program Representative, IT **New London, CT**

Mr. Hudgins liaised Naval Sea Systems Command (NAVSEA), Defense Information Systems Agency (DISA), NMCI, and Electric Boat Information Technology (EBIT) organizations to identify and resolve network connectivity issues. His excellent understanding of Electric Boat's processes allowed him to provide superior recommendations for resolving problems.

Key Achievements:

- Represented Electric Boat at trade shows and marketing events, showcasing core functionality of IPDE systems and providing invaluable insight on Technical Data Packages (TDP).
- Utilized prior Siemens Product Lifecycle (PLM) experience to lead major DISA, NMCI and Electric Boat testing efforts, using outcomes to identify risks to the IPDE program.
- Guided stakeholders and product owners to key development decisions by formulating requirements, advising alternative approaches, and conducting feasibility studies.

General Dynamics Electric Boat **2015 - 2017**
Automated Test Engineer **Groton, CT**

In late-2014, Mr. Hudgins was tasked with establishing an automated testing program for EBIT. He created Rough order of Magnitude (ROM) estimate, developed a Plan of Actions & Milestones (POA&M), outlined a high-level schedule, and scoped requirements needed to justify funding of a $2.1M effort. He was required to factor the limitations of the company and optimize benefit yielded. Mr. Hudgins partnered with the sub-contracted IT organization DXC Technology to establish accreditation, complete a cyber-security risk assessment, and eventually implement an enterprise-wide automated testing strategy.

Key Achievements:

- Inventoried organizational requirements and successfully evaluated return on investment to create business cases for purchasing IBM's Rational Functional Testing (RFT) automated testing tool.
- Instituted automated testing suite, saving nearly 2,400 annual test hours that resulted in savings of approximately $460,000 per year.
- Developed and maintained internal web pages that documented organizational structure and test block(s) using HTML, CSS, and JS.
- Load-tested Active Workspace (AW) Apache Solr database and captured results as tabular data, used later to populate performance dashboards.
- Compiled test results aggregated from internal and external business systems to provide management with robust analytics.

General Dynamics Electric Boat **2014 - 2015**
Test Engineer **Groton, CT**

While working as a Test Engineer Mr. Hudgins was the performance testing lead, demonstrating adaptability through a rigorous two week block schedule that included Mainframe, Unix, and Windows based Change Requests (CR)s. His Day-In-The-Life (DITL) testing model established a baseline for testing performance, data complexity, and infrastructure changes that are still used by the company to-date.

Key Responsibilities:

- Leveraging familiarity with Siemens PLM Teamcenter (TC) XML-based reporting, including data model traversal rules, TCXML, PLMXML, and XML transformation technology to create sound tests.
- Used abundant knowledge of industry design principles to create data for unit test cases in DEV and STAGE environments.
- Functional test case development of workflow, Change Management (CM), purchasing, procurement, welding, and Virtual Desktop Interfaces (VDI).
- Provided recommendations on nature, scope and complexity of issues introduced by functionality changes by testing various software configurations and customizations.

General Dynamics Electric Boat **2013 - 2014**
System Support Specialist **Groton, CT**

As a System Support Specialist, Mr. Hudgins directly supported a 3,600+ user community, spanning three operating systems, 19 unique business systems, and nearly 13 worksites. Mr. Hudgins used oral and written communication to expeditiously resolve issues from Internet Service Provider (ISP) to client workstation level, ensuring continued connectivity of the company's production environment.

Key Responsibilities:

- Clearly articulated user problems in a ticket database later used by product architects and software engineers to deploy break/fixes post-turnover.
- Acted as user system administrator of Windows-based business systems and Unix Model Based Engineering (MBE) systems, using active directory and home-brewed Unix tools.
- Instructed design users to problem-solve and troubleshoot issues introduced by Change Requests (CR).
- Lead production support help desk by connecting, configuring, and repairing Computer-Aided Three-dimensional Interactive Application (CATIA) devices used by the design community.

General Dynamics Electric Boat **2012 - 2013**
Mechanical & Electrical Design **New London, CT**

As a designer, Mr. Hudgins worked closely with mechanical engineering, planning, and other design disciplines to ensure submarines returned to sea with minimal Technical Variance Documents (TVD) in order to limit unnecessary cost and ensure the safety of sailors.

Key Responsibilities:

- Resolved D, X, and N-type waterfront Engineering Reports (ER) against Virginia Class submarines.
- Added technical details to existing designs using industry knowledge to build upon Electric Boat-specific drafting practices.
- Created hanger and cableway installation drawings for Moored Training Ship (MTS).
- Attended knowledge exchange Design for Production (DFP) events to remain abreast of cost and time-saving design methodologies.

EDUCATION

Full Stack Web Development

George Washington University - Washington, DC

A 24-week intensive program, focused on gaining technical programming skills in the JavaScript language.

Computer Aided Drafting and Design

Ella T. Grasso Tech - Groton, CT

A 4-year program, learned skills in advanced Geometric Dimensioning and Tolerance (GD&T), 2-D computer aided drafting using AutoCAD, 3-D computer aided drafting (Autodesk Inventor© and SolidWorks©), intersection drawings and development drawings. Participated in Work-based Learning (WBL) drafting and design projects for local customers to achieve an acceptable level of proficiency.