

AKHIL RAO

PHONE: (240) 687 - 4615 • E-MAIL: AKHIL@AKHILRAO.COM • WEBSITE: AKHILRAO.COM

CAREER OBJECTIVE

To obtain a leading position in architecture, design, development, and implementation of enterprise & cloud systems. Based in Tampa, FL. Open to remote/travel, W2, 1099, corp-to-corp.
U.S. Citizen; TS/SCI w/FSP.

SUMMARY OF EXPERIENCE

12+ years in Architecture, Design, Development, and Implementation of Information Technology, Networking, and Web Solutions, to include:

- Design and development of websites and web applications using HTML, CSS, JavaScript, PHP, and Python
- Design, development, test, and deployment of Enterprise & Embedded Applications using Java, C++/Visual C++, C, Visual Basic, .NET, and SharePoint using IDEs like Eclipse, Microsoft Visual Studio, IntelliJ IDEA, JetBrains WebStorm, and NetBeans
- Full Stack Web Development using AngularJS/jQuery/Ext JS, Node.js, Express, REST/Web Services, Hadoop/HDFS, Amazon Web Services (AWS), & cloud technologies, NoSQL (CouchDB, MongoDB, Accumulo, Cassandra) & Relational (Oracle, PostgreSQL, MySQL, MS SQL Server) Databases
- Ability/Eagerness to learn new & proprietary technologies as necessary for Solutions; MATLAB, PSpice, Twister Data Framework, Ozone Widget Framework, Google Apps/G Suite
- Lead/Participant in Agile Software Development, Scrum & Kanban Methodologies, and related technologies (Trello, AgileZen, Bugzilla, JIRA Agile); User Stories Traceability & Linkage to Requirements

EMPLOYMENT EXPERIENCE

January 2016 – Present

Ad Infinitum Consulting (AIC)

Tampa, FL

Principal, IT & Solutions Architect

- IT Program Manager, Program Management Office – Function as the Technical Advisor to the Director of the Office of Information Systems and Technology (OIST) of the Employment and Training Administration (ETA) of the United States Department of Labor (DOL):
 - Work in collaboration with leadership to support and manage day to day interactions with executive clients and sponsors; Engage with clients to identify creative, savvy, business, and technical solutions to challenges that ETA/OIST must confront and overcome to support its community using & executing industry standards and proven best practices.
 - Work with Federal Government Lead to architect cloud delivery based on both business and technology requirements; Assist the Director and staff with specific recommendations for developing cloud native applications; Work with key stakeholders to perform holistic assessment of people, culture, and the ETA business environment to drive digital transformation and business process reengineering, develop feasibility assessments and operational analyses, and work with both federal project managers and contractors to develop conceptual and technical documentation; Responsible for ensuring that a well-defined continuous feedback loop is established that provides critical, complete, and accurate management information to the executive team to enable appropriate management decision making.
 - Effectively communicate, negotiate and build strong relationships with OIST Leadership, DOL Office of the Chief Information Officer (OCIO), Financial, Procurement, and other business partners.
 - Utilize technical skills that incorporate: knowledge of hardware technologies and software licensing models; understanding of software delivery models and metrics; understanding of IT Strategy, Roadmaps, Enterprise Architecture (EA), Cloud Architecture, Amazon Web Services (AWS), Digital Transformation, Business Process Reengineering, Program Delivery, API Management, Web Services, and Full Stack Development; understanding of Information Technology Service Management (ITSM) Processes.
 - Identify and address client needs; Actively participate in client discussions and meetings; Sustain client relationships; Prepare and present high quality written and verbal materials, using Microsoft Office (Outlook, Word, PowerPoint, Excel, and Visio) and other presentation software; Communicate to a broad range of Executives; Attain full buy-in and executive sponsorship.

- Design and develop web applications for commercial clients in Marketing, Sales, Distribution, and Logistics industries.
- Establish corporate IT infrastructure for internal and external/commercial teams; Improve customer outreach and acquisitions.
- Provide technical knowledge and documents authoring on proposal teams for federal, state, and local contracts, including joint ventures and teaming agreements.
- Design and develop prototype applications using various enterprise & web technologies to be included as IT solutions in contract services.

November 2014 – December 2015

ManTech International Corporation

Los Angeles, CA

Principal Software Architect

- Project Lead on a pilot project building a prototype Web Portal for the U.S. Air Force to correlate multiple datasets and analyze patterns in Computer Network Defense. Designed and developed with latest web technologies such as AngularJS, Bootstrap, Node.js using npm, Yeoman, Grunt, Bower, and many of the available modules that interact with these tools, along with JAX-RS with Jersey for Web Services using JSON media to communicate with a Java EE server with a Maven build process allowing PKI Authentication and custom-built Roles & Permissions based Authorization to access PostgreSQL Databases and custom-built Data Ingest & Correlation tools for the datasets. Analyzed the application of Apache Shiro Security.
- Responsible for the full direction of software engineering, design, and architecture. Prepared project-level, program-level, and user-level Documentation, Project Plans, and Schedules. Facilitated authoring of Test Plans/Use Cases/Automated Tests. Worked with a remote, virtual team. Traveled for client demonstrations.

September 2011 – October 2014

Hanover, MD

Principal Software Engineer

- Lead Widget Applications Engineer on the Cyber Situational Awareness Analytical Cloud (CSAAC) project for Defense Information Systems Agency (DISA)'s Unified NetOps/Cyber Situational Awareness (UNSA) program using AngularJS, jQuery, Ext JS, Hadoop, HDFS, Accumulo, PostgreSQL, and Ozone Widget Framework (OWF). Producing developer guides, software design documents, and GAT (Government Acceptance Testing) support guides. Working with geographically distributed (onsite/offshore/onshore) team.
- Development Lead working in a classified lab environment on the Joint Incident Management System (JIMS) project for DISA's UNSA program using a custom modified Atlassian JIRA base integrated with Web Services, UI Extensions, Transactional Listeners, Twister Data Framework, SOLR Indexing, BIRT Reports, and PostgreSQL Databases. Responsible for the general direction of software engineering, design, and architecture. Managing developers, tasking, and agile software lifecycle, including making difficult time and resource sensitive decisions. Preparing project-level, program-level, and user-level documentation.
- Design, development, integration, testing, customer acceptance, release, and maintenance of multiple SIGINT Java Enterprise Web applications for the National Security Agency (NSA) using Eclipse, Google Web Toolkit (GWT), Hibernate, Oracle SQL Database, Ant, CouchDB No-SQL/Cloud Database, Lucene, Ektorp, SVN, Git, GitHub, GitWeb, Review Board, Rally, Jenkins, and deployments using Tomcat in Windows and UNIX environments. Utilized PHP, Groovy, Ruby, Perl, and Python as needed and for legacy app migrations.
- Worked directly with clients in a classified SIGINT environment to deliver prompt and quality end products including valuable enhancements and bug fixes in a collaborative team using high intensity Agile software development methodologies. Efficiently utilized limited developer resources and time to analyze and interpret customer requirements into effective and functional applications that adhere to security, legal, and ethics policies of the client organization.
- Initiated and implemented technical system management tools and workflows to improve team development efforts, effectiveness, and efficiency. Instantiated and configured Version Control Systems like Git and Subversion plugged into peer Code Review tools like Review Board and Continuous Integration/Continuous Deployment/Continuous Delivery systems like Hudson and Jenkins with detailed documentation to increase team productivity and product superiority. Championed a web-based visualization for Git repositories for the entire office using GitWeb on cloud VMs.
- Led software development and systems engineering tasks, including integration with several external services developed by other teams in the client organization. Assisted project manager on technical endeavors to

provide subject matter expertise and perspectives. Developed interfaces using RESTful, SOA practices for external teams to access and receive application data and support.

- Initiated internal research and development project from a personally developed custom solution to a client need. Submitted a proposal and received funding from ManTech to improve, expand, and productize.

June 2009 – January 2011

Booz Allen Hamilton, Inc.

Annapolis Junction, MD

Consultant

- Worked with a small team in a classified SIGINT environment to develop and test a SIGINT Java and C++ Enterprise product for the National Security Agency (NSA), with scheduled deliverables based on requirements and bug reports. Designed and improved test cases and procedures to create a superior product release and reduce issues and failures during system testing performed by client; received commendation from team lead.
- Process Manager for the design and implementation of the software development and test life-cycle process. Established and utilized JIRA and other Atlassian Project Management products to efficiently, effectively, and productively use team resources.
- Developed a Booz Allen Hamilton Marketing web product using SharePoint technology. Worked on the graphics and GUI aspect using images, CSS, JavaScript, and HTML, which led to several profitable client presentations and interests in the product. Received Booz Allen Hamilton Hi-5 Award for Excellent Contribution to the Team.
- Technical Task Lead on developing a high-visibility Booz Allen Hamilton internal .NET web product with direct requirements from a Partner/Share-holder. Worked mostly on the GUI aspect using HTML and CSS and on implementing Subversion version control and Trac bug tracking.
- Collaborated with a government client to maintain and update web applications. Converted legacy applications from C++ to Java, using technologies like Eclipse, JBOSS, Java EE, and OC4J.
- Researched the implementation of MATLAB Distributed Computing Server on a Cloud Computing infrastructure for the U.S. Army Research Laboratory (ARL). Tasks included designing and documenting detailed procedures and presenting the findings to the client within a two-week period. Client extended the contract for implementation.

May 2008 – January 2009

**Boeing – Defense, Space & Security
(Digital Receiver Technology, DRT)**

Germantown, MD

Co-op

- Successfully integrated DLL (Dynamic Linked Library) into DRT's main software application, implemented error-handling GUI functionality, and authored test procedure document to verify accurate results. Commended by the Director of Software Engineering for an impressive and quality product.
- Implemented functionality for adding new devices to a Device Architecture.
- Developed automatic software test procedures using Visual Basic in TestPartner application.

December 2005 – October 2008

Anderson Materials Evaluation, Inc.

Columbia, MD

Computer Technology and Computer Information, Webmaster, and Lab Technician

- Redesigned company website to improve the organization and presentation of information, including SEO; HTML, CSS, JS, PHP, Python on Apache HTTP Server; Setup professional company email and accounts; Resulted in additional clients, smoother business & client relations processes, and increased business.
- Developed, implemented, and maintained a LAN with shared network file storage for a small business office of 20 machines.

August 2007 – December 2007

University of Maryland

College Park, MD

Undergraduate Teaching Fellow

- Generated instructional materials, including simulation procedures, for students.
- Presented educational support on usage of PSpice software/application.
- Ensured and improved agreements between simulation results and laboratory results.

January 2000 – November 2005

Self-employed

Germantown, MD

Student Entrepreneur

- Web design and maintenance of simple websites for small-business, non-profit, and personal marketing using HTML, CSS, PHP, and JavaScript.
- Video editing and production of small-business, non-profit, and personal marketing films and keepsakes in VHS, DVD, and Digital formats.
- Audio editing and mixing of small-business, non-profit, and personal audio clips and songs on Compact Discs and Audio Cassettes.
- Live Performance Sound mixing and production for non-profit, small-business, and personal events.

June 2002 – July 2002

Hughes Network Systems

Germantown, MD

Summer Student Intern

- Auditing Electronic Instruments & Equipment.
- Logistics Support for Equipment Calibration.
- Equipment Identification Management.
- Calibration Records Management.

EDUCATION & RELATED COURSEWORK

Bachelor of Science

University of Maryland, College Park

Electrical Engineering, Computer Science, and Mathematics

- *Object-Oriented Programming*: Software Engineering Principles, Design, Build, Test, & Debug Medium-Size Software Systems, Programming in Java
- *Human-Computer Interaction*: Assess usability by quantitative and qualitative methods. Apply design processes and guidelines to develop professional quality user interfaces. Build low-fidelity paper mock-ups and a high-fidelity prototype using contemporary tools such as graphic editors and a graphical programming environment.
- *Low-Level Programming*: Hardware, Memory Layout, Memory Management, Operating Systems, Affect on Software Systems, Programming in C
- *Microprocessors*: Microprocessor architectures, instruction sets, and applications. Bus structures, memory, I/O interfacing. Assembly language programming, LSI device configuration, and the embedding of microprocessors in systems.
- *Operating Systems*: Processes, Signals, Scheduling, Synchronization, Semaphores, Virtual Memory, Demand Paging, File System
- *Digital Logic Design*: Gates, Flip Flops, Registers, Counters, Karnaugh Maps, Gate Networks, Synchronous Sequential Systems, Programmable Logic Arrays, FPGAs, ASICs, Switching Algebra
- *Basic Circuits Theory/Lab*: Basic Circuit Elements, Kirchhoff's Laws, DC and AC Steady State Analysis, Node & Mesh Analysis, Transient Analysis of First and Second Order Circuits, Low-Pass, Band-Pass, and High-Pass Filters using Operational Amplifiers
- *Analog & Digital Electronics Theory/Lab*: Operational Amplifiers, Transistors, Diodes, Large and Small Signal Operation of BJTs and MOSFETs, Differential Amplifiers, Current Mirrors, Frequency Response
- *Computer Organization*: Structure/Organization of Digital Computers, Registers, Memory, Control, I/O, Data & Instruction Formats, Assembly Language Programming, MIPS Architecture

TRAININGS AND ACTIVITIES

- AWS Technical Professional
- Corporate Utility Cloud Solution (IaaS) Training
- SharePoint Developer Training
- National Honors Society
- Agile Scrum Lead
- Spring Developer Training
- IDA Pro Training
- Sigma Beta Rho Fraternity