

Ann K. Hoang

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Employment Profile: Senior software and cloud engineer with 8+ years of work experience in agile enterprise software development, cloud architecting, project management, and database design, RESTful API design, and development in multiple languages and sectors: Bay-Area startups, DC non-profits, and management consulting firms. Software coach and reviewer with experience mentoring Google, Stanford Business School start-ups, and YCombinator engineers on data structures and best practices; course designer for Python and Java web application for the MOOC platform at Udacity; experience leading teams of professional junior engineers on implementing DevOps cloud application projects for the enterprise stack; lead software developer for early cattle ranching B2B application at Stanford Business Incubator. Currently working on CloudFormation templates on Amazon Web Service for automation and its ARM equivalent in Microsoft Azure Cloud; architect multi-tiered, fault-tolerant systems for the VA Gov. Cloud environment.

Key Requirements: US Citizen, Top Secret clearance with Raytheon

Education: Johns Hopkins University

Master of Science in Computer Science, Enterprise and Web Computing Track

University of California, Berkeley

Bachelor of Science in Psychology, Cognitive Science Track

Red Ventures, Senior Data Engineer

August 2021 - Current

100% Remote, Charlotte, North Carolina

- Lead team to migrate from AWS Redshift cluster to RA3 instance in a pilot using CloudFormation extract and replay SQL scripts. This results in a 10% improvement of query time across our data warehouse used for reporting each of Higher Education vertical's functional groups (CE, SEO, paid media, etc.)
- Integrate ETL pipelines in Scala using Databricks and Airflow from deprecated libraries to our internal core SDK, which aid our reporting-ready data models from data lake. Other jobs include core backfill and lead outcome ingestion processes which are orchestrated in Airflow and managed through Terraform.

Raytheon BBN Technologies, Senior AI Research Scientist

April 2020 - August 2021

TS-SCI Clearance, Arlington, Virginia

- Core researcher for Machine-assisted Analytic Rapid-repository System (MARS), an open system architecture that allows for frequent incorporation of technology advancement through integration, requires a solution for rapid discovery, access and retrieval of correlated foundational information for numerous content repositories in support of big data fusion at the speed of the Defense Intelligence Enterprise (DIE) mission.
- I architect and engineer API microservices as software solutions for the Department of Defense maritime supply chain logistics. Many of the services are from current literature on statistical models and data engineering research. Our stack is industry standard: node.js, React.js, Java Spring Boot, etc.—however, I specialize in Python Django for application development.
- I am also the main developer on my team to implement DevOps CI/CD pipelines with Kubernetes and Docker.

Booz Allen Hamilton, Senior Cloud Architect Engineer

April 2019 - April 2020

Public Trust Clearance, Washington, D.C.

- Building the Repository for analytics in a virtualized environments (RAVEN) analytical platform and tool set, which is intended to bring investigative, intelligence and scientific capabilities to provide support for the U.S. Immigration and Customs Enforcement. Stack: JanusGraph, GraphDB, Hadoop, HBase, Anaconda, Python, Java.
- Create interactive user interfaces and frameworks for the 3d printing enterprise design client and server application in AWS. Obtain feedback and integrate into the Human-Centered design frameworks to produce 3D printing interface that serves the needs of multiple stakeholders. Also, 3d printing long-term cloud storage and internal VA web interface will help drive down cost and streamline the procurement process for medical treatments across VHA hospitals.
- Present the interfaces to stakeholders at VHA iEX annual conferences for feedback and guide software developers to model and design database patterns.
- Implement CentOS7 RHEL7 Linux-based images for Docker containers for AWS Elastic Container Service with hardened security measures for both the Docker and the application level.
- Create prototypes of software products based on enterprise cloud computing design patterns that outlines the strategy and framework for VA's future state cloud computing vision that is in accordance with the enterprise technology goals

and objectives. Some examples include ASPNet applications at the VA that query the API in order to automate the form-creation process.

- Research and select emerging cloud and software technologies that align to the current strategic need of the VA.
- Provides advice and consultative services to other employees and solution architects in regards to alignment with best architectural implementation for fault-tolerant, secured, and cost-effective lift-and-shift cloud migration strategies with Azure and AWS as two main services for implementation.

Center for Community Change Action, Senior Software Developer
Washington, D.C.

July 2016 - April 2019

- Accountable for successful migration of raw binary, text, and voter data and constituent messaging application from on premise data centers to the AWS cloud platform on EC2 instances under Elastic Load Balancers for auto scaling, with Aurora RDS as choice for relational database management platform.
- Provide strategic consultation for cross-organizational brand alignment for the firm's new pivot into more targeted voter analyses, and evaluations of all phases of the implementation of design patterns, vendor engagement, and constituent management platforms to provide multi-state operations for effective and efficient voter outreach operations.
- Maintain multiple *nix servers and Apache servers: Ubuntu, CentOS, FreeBSD, Amazon Linux AMIs with backup MySQL databases, manage SFTP users, SSL certificates.
- Consult staff on the appropriate AWS service based on data, compute, database, and security requirements: IAM administration and role management for AWS on services and resources; enact lifecycle policies for S3 buckets to Glacier and/or other data storage solution
- Lead team of developers on custom theme development for digital platforms using SASS, CS3, and compass with Git as source version control.
- Guide other external stakeholders such as Blue State Digital (Constituent Management System) administration for mass mailing, fundraising, and data administration. Aid team in Social Media integration from APIs of Twitter, Facebook using Hootsuite, Google Analytic to existing applications.
- Consolidate demographics and voter data from broad electronic records, gubernatorial races, and external APIs from vendors to provide leadership with guidelines on strategies for voter engagement, operation analysis of software adoption cost, and data visualization for messaging and communication with the press.
- Lead and train team of digital technologies on emerging security best practices such as application firewall, code reviews and analysis scanners, source version control, content management administration, and hardening techniques for Apache web server.
- Collaborate with multi-departments such as IT, finance, and operations in the transitioning of all DNS records into AWS S3 and Route53 for future maintenance and security.

Radical Designs, Full Stack Developer
Oakland, CA

Oct 2014 - July 2015

- Provided advice to clients in resolving a wide range of web application and network issues from content management database systems and responded to new requests for changes in applications and features.
- Collaborate with designer and data architect on web CMS projects: custom theming, MySQL sanitation and data recovery. Work on custom CMS development using frameworks such as Rails, Flask, and our in-house PHP-based framework. Maintain 100+ clients web property on our servers and resolve issues from the ticket queues.

Certifications:

Amazon Web Service Solutions Architect Associate
CompTIA Network+
Splunk Core Certified
ICAgile Certified Professional (ICP)
ICAgile Certified Professional Foundations of DevOps (ICP-FDO)