

## Alexander K. Whipp

Portfolio: [awhipp.github.io](http://awhipp.github.io) | GitHub: [github.com/awhipp](https://github.com/awhipp) | LinkedIn: [linkedin.com/in/awhipp](https://linkedin.com/in/awhipp)

Clearance: TS / SCI

Last Updated: September 2023

## Experience

### Lead Associate – Senior Lead Technologist

*Booz Allen Hamilton. – January 2020 to Present*

#### Department of Defense – Chief Data and Artificial Intelligence Office (November 2022 – Present)

- Technical Lead for the Data Operations Portfolio supporting the development and deployment of the Advana big data platform. Team of 10 and actively growing.

#### National Cancer Institute (August 2021 – October 2022)

- Enterprise Architect (team of 25) at NCI's Center for Biomedical Informatics & Information Technology (CBIIT) overseeing the architectural implementation of the Clinical Trials Reporting Program (CTRP) and SeroHub.
- Primary function includes leading deployments, administering cloud environments (AWS), and applying systems administration experience on cloud web services platforms to include security, load balancing, provisioning, and metrics.
- CI/CD (through TravisCI and GitHub Actions), Python, Java Springboot, Docker, AWS (API Gateway, Data Pipeline, Lambda, RDS, Elasticsearch, CloudFront)

#### Centers for Disease Control (August 2020 – January 2022)

- Lead Data Architect for the CDC's Center for Surveillance, Epidemiology, and Laboratory Services (CSELS) DataHub. Focused on setting up data pipelines for the COVID-19 response in AWS.
- CI/CD (through GitHub Actions), Python, AWS Lambda, EventBridge, S3, Glue, and Athena.

#### Food and Drug Administration (July 2019 - August 2020)

- Technical and product lead (team of 50) at the FDA's Center for Drug Research and Evaluation (CDER). Managed client technical requirements and expectations. Assisted and lead in provisioning product deployments against tiered environments (develop, pre-production, and production).
- Python, Java, Docker, Apache Spark, Node.js, PostgreSQL, AWS (EC2/RDS/S3), SAS, Micro-service Architectures, Proposals.

### Associate – Lead Technologist

*Booz Allen Hamilton. – November 2018 to December 2019*

- Development lead (team of 5) in a strategic investment with Georgetown University surrounding the development of a genomic data commons and analytic pipeline tool.

Related Skills: Scala, Python, Java, AWS EC2/RDS, Docker, Apache Spark, Micro-service Architectures, Proposal Writing.

### Solutions Engineer

*Zoomdata. – November 2016 to November 2018*

- Development and delivery of proof-of-concept projects followed by implementation.
- Service engagements that focus on customer solutions such as HPC, batch data processing, Big Data and Business intelligence
- Deliver on-site technical engagements with partners and customers
- Hands-on implementation of large-scale global data warehousing and analytics projects
- Lead developer on client facing AWS architecture implementations

Related Skills: Snowflake, Kinetica, Presto, SAP Lumira, Amazon EMR / S3 / DynamoDB, Apache Spark, and Java Springboot.

## **Sr. Consultant – Software Engineer**

*Booz Allen Hamilton. – July 2016 to November 2016*

- Customer Success lead—Handle incoming public relations on the public facing Sailfish Product instance.
- Integration of custom SparkR script analytic plugins
- Creation of heat-map and clustering visualizations using OpenLayer 2
- Developed a custom NLP backend to increase future product scalability

Related Skills: Apache Spark (SparkR, pySpark, and Java), J2EE, HTML5/CSS/Jquery, AWS (EC2 Management)

## **Consultant – Software Engineer**

*Booz Allen Hamilton. – July 2015 to July 2016*

- J2EE Web Application and Apache Spark Developer
- Creation of Data Science modules for Java based Spark Web applications
- Spark Developer for the USDOT creating an Operational Data Environment for Connected Vehicle Research doing data transformations on incoming streaming data.

## **Web & Mobile Developer**

*MyQVO, inc. – December 2014 to July 2015*

- Integration and Deployment of Subscription Services (ie: PayPal, and Stripe)
- PhoneGap Development (Mobile) to replicate Web functionalities
- Primary Focus: Backend CodeIgniter PHP Framework for development of RESTful APIs
- Secondary Focus: HTML5 and Unity3D development of web-based and mobile education games.

## **Google Glass Software Engineer – Independent Contractor**

*Curiosity Media. – August 2014 to February 2015*

- Built on Glass Development Kit (GDK)
- Network thread management
- Appropriate offline capabilities using cached information

## **Software Engineer – Strategic Innovation Group (SIG) Intern**

*Booz Allen Hamilton. – Summer 2014*

- Google Glass/Android Development
- AWS Server Backend Implementation
- Integration of Oculus Rift and AR Drone SDKs
- Dynamic Path Algorithm to be leveraged for a future contract

## **Strategic Innovation Group (SIG) Externship Program**

*Booz Allen Hamilton. – January 2014*

- Big Data Calculations (Hadoop, Java, Value-at-Risk Finance)
  - Web Application Penetration (Cross-site Scripting, SQL injection, Denial-of-Service)
  - Agile Software Development Model Process
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## Education

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### **Data Analytics, M.S.**

2019 — 2022

*George Mason University*

*—Financial Engineering Concentration*

### **Computer Science, B.S.**

### **Psychology, B.S.**

2011 — 2015

*University of Maryland, College Park*