

ARVIN VARADHARAJALU

121 Huntingdale Road, Huntingdale, WA - 6110

M: 0421048697 E: arvin@live.in

SUMMARY

- **Cloud Architect / Team Lead / Senior cloud engineer** with over 7 years of experience in AWS cloud services, 2 years experience in GCP services and a total of 14 years of experience in Agile software development, testing, and maintenance of several high throughput web applications.
- Responsible for architecting and leading the team responsible for building high throughput and multi cloud applications (TrafficGuard and NXUS) and microservices in AWS and GCP.
- Part of the team responsible for the partial migration of TrafficGuard from AWS to GCP.
- Used several AWS services such as **AWS DynamoDB, EC2, Lambda, Glue, ElastiCache, S3, Redshift, Kinesis, Athena, Apache Druid, Airflow, Aurora MySQL**, etc for development of TrafficGuard and NXUS.
- Used several GCP services such as **BigQuery, DataFlow, DataProc, Composer, Pub/Sub, Cloud Run, Cloud Functions, BigTable, MemoryStore, DataStore**, etc for development of TrafficGuard.
- Several years of experience in developing applications using **Node.JS, JavaScript, Python, PHP**, etc.
- Responsible for architecting TrafficGuard in AWS/GCP and also led the team responsible for building TrafficGuard. TrafficGuard is a SaaS platform aimed at preventing multi billion dollar fraud for advertisers.
- Lead a team of 12 developers which developed a web application called **Nxus** that handles billions of transactions and generates millions of dollars of revenue every month. Nxus is an advanced tracking, monitoring and reporting system which is used by affiliates and advertisers all over the world.
- Integrated TrafficGuard/Nxus tracking to various technologies such as **AWS Firehose, Kinesis, Redshift, S3, Presto, Spark, Hive, Tableau, Qubole, BigQuery, Pub/Sub, DataFlow** etc. so the data team could build data lake and carry out data analytics, machine learning and provide business intelligence.
- Managed and led various projects using **Agile Development Methodologies** with the help of **Jira, Confluence and Stash**. Responsible for creating sprints, arranging scrums, dealing with stakeholders, managing team members and making sure the overall project is developed within the time and budget.
- Integrated **Netsuite** CRM and built a web interface using NetSuite's **SOAP API** for Water Corporation of Western Australia.
- Developed and maintained **admission system** for an International university with over 6000 staff members and several thousand students using **Salesforce, Zend Framework and MSSQL**.
- Built a medical application called **AurisView** for Ear and Science Institute of Australia. It is used by clinicians, ENT specialists to capture photos, record audio graphs and other clinical information.
- Created 100s of websites, e-commerce platforms using **BigCommerce, Magento, Joomla, Wordpress**, etc.
- Built a web application for **Android Tablets** using **jQuery UI, PHP and MySQL**. It is used by building inspectors from Houspect to capture photos and record structural information during house inspections.
- **Published a scientific paper** called **Author Name Disambiguation for Ranking and Clustering PubMed Data Using NetClus** in Australasian Conference on Artificial Intelligence 2011.
- **Developed a prediction algorithm** for Dartmouth college student's wifi activity using Markov Model.
- Was in Top 100 programmers in **Scriptlance.com** in 2009.
- Won several web designing competitions including Microsoft .NET user group competitions.

EDUCATIONAL QUALIFICATIONS

- **Google Cloud Certifications**
- **2009**: Master of Computer Science in University of Western Australia, Australia
- **2005**: Bachelor of Technology in Madras Institute of Technology, Chennai, India.

SKILLSET

Languages	Node.JS, TypeScript, Python, PHP, JS, Angular, C, C++, Android SDK and JAVA
Database / Queue	DynamoDB, BigTable, DataStore, MemoryStore, ElastiCache, Aurora, RDS, MySQL, AWS Kinesis, Pub/Sub, MSSQL, PostgreSQL, Oracle
Big Data	BigQuery, Athena, DataProc, Glue, DataFlow, AirFlow, Looker, Tableau, Apache Druid, Redshift
Development Tools	Jira, Confluence, BitBucket, GitLab, GitHub, ActiveCollab, Stash
CRM, ERP	Salesforce, NetSuite, jCurve, VTiger, SugarCRM, Workflow Max
CMS	Joomla, Drupal and Wordpress
e-Commerce	Interspire, Prestashop, Virtuemart, Magento, Cube, Agora, Zen shopping carts
GUI	HTML CSS, JQuery UI, Indesign, Photoshop
Operating Systems	Linux, Unix, Windows, Mac OS X
Version Control	GIT, SVN

PROFESSIONAL EXPERIENCE SUMMARY

Nov, 16 - Till now	Cloud Architect / Team Lead in TrafficGuard
Aug, 12 – Oct, 16	Team Lead in Mpire Media Pty Ltd
May, 12 – Aug, 12	Senior Web Developer in Navitas
Jan, 10 – May, 12	Team Leader/ Senior Web/ Mobile application developer and consultant in Fuel Creative
July, 09 – Dec, 09	Web application developer and consultant in Modus Operandi, Perth, Australia
April, 08 – July, 09	Freelance web app developer in Scriptlance.com https://www.freelancer.com/u/acelancers.html
Sep, 08 – Feb, 09	Worked in Anna Institute of Management to develop their event management web application.
Sep, 06 – April, 07	Web application programmer in GODB Tech Solutions

PROJECTS COMPLETED

TrafficGuard - Ad fraud prevention SaaS

TrafficGuard is a SaaS platform aimed at preventing multi billion dollar fraud for advertisers. The main objective is preventing invalid and fraud traffic in real time across the whole advertising journey and making the business of ad fraud infeasible to perpetrators. Fraud could range from bots, click farms, or competitors clicking ads. TrafficGuard uses data analysis and machine learning to prevent billions of invalid transactions in real-time from siphoning off clients' advertising budget.

Link: <https://www.trafficguard.ai/>

Technology Used: AWS DynamoDB, EC2, Lambda, Glue, ElastiCache, S3, Redshift, Kinesis, Athena, Apache Druid, Airflow, Aurora MySQL, BigQuery, DataFlow, DataProc, Composer, Pub/Sub, Cloud Run, Cloud Functions, BigTable, MemoryStore, DataStore, etc.

Roles and Responsibilities:

- Responsible for architecting TrafficGuard in AWS/GCP hybrid cloud environment and also led the team of 12 developers in Australia and Croatia responsible for building TrafficGuard.
- Part of the team responsible for the partial migration of TrafficGuard without any downtime from AWS to GCP. Migrating TrafficGuard from AWS to GCP was very challenging because of the high throughput nature of TrafficGuard. TrafficGuard receives 700 million daily transactions across all load balancers and 1TB of data is processed per day. SLA of 99.988% availability and under 400 ms response time from any part of the world was achieved as part of the migration.

- Data engineers and scientists relied heavily on BigQuery so was responsible for architecting the hybrid cloud nature of TrafficGuard so we could use the best of both cloud environments: AWS & GCP.
- Responsible for architecting several microservices using Lambda, Cloud Functions and Cloud Run.
- Responsible for building data pipelines and data lakes using Kinesis, Firehose, Glue, S3, Athena, AirFlow, Hive, Presto in AWS and Pub/Sub, DataFlow, S3, Cloud Storage, Composer, etc in GCP.
- Responsible for building aggregation and reporting layers using Apache Druid, RedShift and BigQuery.
- Responsible for integrating Presto, Hive, Spark, Qubole, Tableau, Looker, Imply for data analysts.
- Responsible for storing billions of transactions, building user journey, attribution, user/device profiles and various feature stores using DynamoDb and BigTable.
- Responsible for building exclusion rules using DynamoDb, DataStore, ElastiCache and MemoryStore.

Nxus – Tracking, Analytics, Reporting Web Application

Nxus is a web application which handles billions of transactions and generates millions of dollars of revenue every month. Nxus is an advanced tracking, monitoring and reporting system which is used by affiliates and advertisers all over the world. The code, infrastructure and database had to be heavily optimized to handle the high volume of traffic.

Link: <http://www.techmpire.com/>

Technology Used: Laravel PHP Framework, DynamoDB, AWS Redshift, S3, Kinesis, Xero API, Angular JS, MySQL, Redis, TeraWurfl, Infuze, Elastic Cache, MaxMind, Presto, Spark, Hive, etc.

Roles and Responsibilities:

- Lead a team of 12 developers in Australia and Croatia in building a web application called Nxus.
- Communicated with data team, DevOps engineers, overseas development teams, product team and management on a daily basis for the planning and development of Nxus.
- Responsible for research and implementation of various technologies such as AWS DynamoDB, Kinesis, S3, Elastic Cache, Redis, Redshift, etc. to improve the performance of Nxus.
- Integrated the tracking component of Nxus to various technologies such as AWS Firehose, Redshift, S3, Presto, Spark, Hive, Tableau, Qubole, etc. so the data team could carry out data analytics, machine learning and provide business intelligence.
- Managed and lead the project using agile development methodologies with the help of Jira, Confluence and Stash.
- Responsible for creating sprints, arranging scrums, dealing with stakeholders, managing team members and making sure the overall project is developed within the time and budget.
- Responsible for developing sophisticated algorithms for reporting, modeling of data, and analytics.

Author Name Disambiguation for Ranking and Clustering PubMed Data Using NetClus

Description: The ranking and clustering of publication databases are often used to discover useful information about research areas. NetClus is an iterative algorithm for clustering heterogeneous information network that incorporates the ranking information of individual data types. In this paper, we apply NetClus on PubMed, a free database of articles on life sciences and biomedical topics to discover key aspects of cancer research. The absence of unique identifiers for authors in PubMed introduces additional challenges. To address this, we introduce an improved author disambiguation technique using affiliation string normalization based on vector space model together with co-author networks. Our technique for disambiguating authors, which offers a higher accuracy than existing techniques, significantly improves NetClus clustering results. Published: [24th Australasian joint conference on artificial intelligence](#).

Shopping Carts

Link: [Leeuwin](#), [Capel Vale](#), [McHenry Hohnen](#), [Onside Sports](#)

Description: Most of the winery clients in WA wanted an online store that was simple to manage, but with the capacity to add advanced features as required. Was responsible for integrating the 'Interspire' shopping system

which has a wide array of powerful functions that track shopper behavior, and measure responses to pricing changes and special offers.

HiCloud – Interactive Business Application

Description: HiCloud is a business model application developed for business analysts. It provides interactive and user-friendly business tools such as Magic wand, Force field, Business Model Charts, etc. It uses advanced jQuery to provide business analysts with ability to drag and drop, sort their notes during meetings.

Role: Responsible for the development of all the jQuery drag and drop interfaces used in the business tools and was also responsible for the server side scripting (PHP) and development of backend database (MySQL).

Houspect – Android Tablet Application

Description: This mobile web application is used by building inspectors to create building and structural reports. Inspectors can also capture photos of the building using a camera interface. Link: <http://houspecttablet.com/>

Role: Responsible for the overall development of the mobile web application. Used a combination of PHP, MySQL, Android File API and jQuery Mobile to develop the whole application.

AurisView - Ear Science Institute Australia

Description: AurisView provides a platform where clinicians, audiologists and specialists can share and maintain records of patients who have problems related with ear. The clinician interface can record clinical information, take snapshots of ear and record audiology information. Then they can synchronize this data to the central server where the specialists review this information and photos

Role: Senior programmer and project leader.

Western Australia Water Corporation

Description: The aim of the project was to convert their existing offline application into a more dynamic online database. We suggested the use of NetSuite CRM and we successfully converted and exported a major part of their offline database into NetSuite. We also created an online interface to manage the NetSuite CRM.

Technology Used: SOAP, NetSuite API, PHP, MYSQL, XHTML, CSS and JavaScript

Role: Responsible for integrating NetSuite CRM API with the frontend interface.

REFEREES

Wei Liu
Professor, UWA
0400888769
<http://www.csse.uwa.edu.au/~wei/>
wei@csse.uwa.edu.au

Raphe Patmore
CEO, NGO manager
0413819889
<http://ngomanager.com.au/>
raphe@ngomanager.com.au