http://vignesh.today

#### Education

#### Master of Science in Computer Science

Jan 2014 – Dec 2015

School of Computing, Informatics, and Decision Systems Engineering - CIDSE

Arizona State University, CGPA: 3.8 on 4 (Magna Cum Laude)

## **Bachelor of Engineering in Computer Science**

Aug 2009 - Jul 2013

Department of Computer Science and Engineering

College of Engineering, Guindy - Anna University, Chennai, CGPA: 9.18 on 10 (First Class with Distinction)

## Software Engineer at LinkedIn

May 2022 - present: Mountain View

I work in the Productivity Engineering org for the Marketing Technology team that serves as a centralized hub for lead capture, data enhancement, data matching, filtering, prioritization & routing. My current project serves to facilitate the flow of incoming LinkedIn sales leads from various sources to their handoff to the Sales Development team thus generating billions of dollars in revenue for the company. I design, lead and implement intelligent in-house leads recommendation and routing system and other smart products that make marketing engineering at LinkedIn a better place.

#### Software Engineer at Meta

July 2020 - May 2022: Menlo Park

I work with the Creator and Publisher Experience (CPX) team specifically on Creator Studio which is the first and only stop for publishers and creators to easily create, manage and monetize their entire portfolio of content (text, links, photos, videos, stories, and upcoming formats) across the entire Facebook (FB) and Instagram (IG) ecosystem. Publishers/Creators will be able to post their content across many distribution channels like News Feed, Stories, Groups, Instagram to reach their community. They will use our insights to understand which pieces of content are performing best for their community, and who makes up their community. They will engage with their audience effectively and efficiently through inbox which is a one stop shop for responding to all FB and IG feed comments and DMs thereby strengthening their relationship to their communities.

#### Software Engineer at Alexa

As a Software Engineer with Alexa AI team, I worked single-handedly on creating the core Alexa Conversations Developer Experience preview which is a new deep learning-based approach that developers can use for creating natural voice experiences on Alexa with less effort, fewer lines of code and less training data than before. This new skill authoring experience helps developers create natural, flexible, multiturn dialogs within a single skill and helps them seamlessly integrate multiple skills into a single conversation without the need for explicit skill invocation and unnecessary context repetition. Alexa Conversations developer portal combines an Al-driven dialog manager with an advanced dialog simulation engine that automatically generates synthetic training data. The skill authoring portal that I built collects API definitions, provides an annotation tool for annotating sample dialogs that include the prompts that you want Alexa to say to the customer and collects all the actions you expect the customer to take without imposing much cognitive overload to the developers interacting with the tool. Alexa Conversations downstream services uses this information to generate dialog flows and variations thus learning the large number of paths that these dialogs could take

## Software Engineer at Amazon

Feb 2016 - Sep 2017: Seattle, Oct 2017 - Jan 2019: Sunnyvale

I worked in the Retail org with the global team responsible for designing, developing, and shipping one of the world's best-known retail websites amazon.com. I developed extremely high-performing platforms, pages, and widgets both static and personalized that respect locale specific needs while also achieving scale and re-usability. I was a full stack developer with this team where I contributed to creating customer value from massive amounts of data, ensuring our features scale to support all relevant business needs, and contributed to the integration of our systems with the overall Amazon ecosystem.

# Software Engineer Intern at Electronic Arts Inc

May 2015 - August 2015: Austin

I worked with the Digital Platforms Infrastructure team to create a service for the open source architecture Graphite using vRealize Automation Application Services 6.2, where I automated the complete application provisioning in the cloud including deploying, configuring and updating the application's components and dependent middle ware platform services on infrastructure clouds. On a higher level, I worked with the team to manage the data center and operations infrastructure to support EA's digital interactive assets. I assisted in automating server builds, deployment, monitoring, alerting, and other orchestration needs. I was also responsible for understanding which workloads are better suited to be run efficiently on public cloud or on a mixture of public and private cloud to drive down cost of hosting, increase quality of service and provide agility to react to the business growth.

# **Projects**

Value added services on Stationary Vehicular Cloud: Most of the mobile phones currently in use have less processing capability. A trivial solution to this resource poverty problem is compute offloading. In this project I have implemented a communication mechanism for providing value added services on an opportunistically formed Stationary Vehicular Cloud by exploiting the idle vehicular resources that, now has become a thing of commonality in cities.

Automatic Question Generator in Tamil: The automatic question generator for Tamil is a language processing system which is used to generate questions for valid Tamil sentences which follows the grammatical rules and constraints imposed by the language. This Natural Language Processing (NLP) system developed by me in the project combines the knowledge about the language and application domain to automatically generate questions for Tamil sentences.

Online Matrix Completion Techniques for Recommender Systems: In this project, the main aim is to build a Recommendation Engine for the Netflix Movie Data-set and address the problem of cold-start, i.e., addressing the problem of recommendation when there is a sparsity of past user data. The recommendation engine is based on Collaborative filtering method, and it uses Online Matrix Completion technique to overcome the data sparsity problem of collaborative filtering method.

SaaS Project Management System: The main aim of this project is to develop a tenant aware SAAS application which enables multi-tenancy, customization, and scalability. I also designed a database schema, system architecture and GUI to support SAAS with emphasis on same code base for multiple tenants with customizable services and tenant-aware front-end components.

Checkout my other interesting projects here

Programming Languages: C. C++, Java. HTML, CSS, JS, React & Node JS, Typescript, PHP, Hack, GraphQL

Infrastructure and Automation Tools: vSphere, vRealize Automation (vRA), vCloud Automation Center (vCAC), vCenter/vRealize Orchestrator (vRO)

Networking Tools: NS2 simulator, CISCO Packet tracer, GENI

Al Tools: Webots simulator, ROS

## **Publications**

- [1] "Automated Planning for Peer-to-peer Teaming and its Evaluation in Remote Human-Robot Interaction" in the 10th ACM/IEEE Intl. Conf on Human Robot Interaction (HRI), 2015.
- [2] " A Human Factors Analysis of Proactive Assistance in Human-robot Teaming" in the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2015.
- [3] "Value Added Services on Stationary Vehicular Cloud" in the Distributed Computing and Internet Technology Lecture Notes in Computer Science Springer Volume 8337, 2014, pp 92-97
- [4] "Automatic Question Generator in Tamil" in the in the International Journal of Engineering Research and Technology October 201