VATSAL SHAH

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SUMMARY

- Having experience to architect, design, develop and maintain a software product
- Detail-oriented, Dedicated and have Problem-Solving, Presentation, Communication skills with the ability to manage multiple tasks in a fast paced
- Team player, engineer and has developed web applications and home automation system from scratch

TECHNICAL SKILLS

Operating System:	Windows, Linux
Languages:	Angular, React, Node JS, Python, JavaScript, Socket, jQuery, Ajax, JSON, HTML, CSS
Databases:	MySQL, Sqlite3, MongoDB
Web/Application Server:	Apache, AWS, Azure, IBM Bluemix
Others:	AWS EC2, AWS Lambda, AWS S3, OAuth2.0, REST APIs, Git

PROFESSIONAL EXPERIENCE

Feb'19 - current	Intrapreneur, Software Engineer	Speak AI Inc, ON, CA
Project:	**Speak – Audio, Video, Text Analyze tool**	
Database:	MongoDB	
Tools/GUI/Other:	Node JS, Angular 7, JavaScript, JSON, CSS, Apache2, OAuth2.0	
Cloud:	AWS EC2, AWS S3, Azure, AWS Lambda	
Role:	Project Lead, Database Design, Application Development from Scratch	

Overview:
Speak is an analysis software that allows users to gain entirely new insights into their speech-driven communication.
- Involved in software design from scratch, database design, security, documentation, cloud services
- Applying algorithm and fundamentals of Machine learning to extract information from audio, video and text
- Backend development with REST APIs and managed security and frontend development in Angular 7
- Admin dashboard to manage users and their videos

Aug'18 – Jan '19	Software Developer	Zucora Home, ON, CA
Project:	**Google Assistant Skill**	
Database:	SQLite	
Tools/GUI/Other:	Node JS, OAuth2.0, Dialog Flow, AWS Lambda	
Cloud:	AWS EC2, AWS Lambda	
Role:	Project Lead, Product Study and Google Skill Development from Scratch	

Overview:
It is a Google assistant skill for customer solutions. Customer can request damage, issues using a skill.
- Signup, and Login functionality for a user using OAuth2.0
- A user can register a complaint through skill by answering a few questions
- Auto identification of the user in Google assistant skill and find already purchased products from various locations

Aug'16 – Aug '18	Software Engineer	Deepkiran Foods PVT LTD, GJ, IN
Project:	**IoT based Home/Office Automation System**	
Hardware/OS:	Raspberry Pi / Linux	
Database:	SQLite	
Tools/GUI/Other:	Node JS, Socket, JavaScript, Ajax, JSON, HTML, CSS, Apache2, OAuth2.0, Google and Alexa Skill	
Cloud:	AWS EC2, AWS Lambda, AWS S3	
Role:	Project Lead, Database Design, and Application Development from Scratch	

Overview:
It is an automation product to control electrical devices (lights, fans, ACs) from the phone, computer, or any WiFi enabled device. This project offers a complete solution, including hardware and software.
- Acted as Team Leader and involved in system design, database design, and prototype design.
- Composed an app to allow voice control of electrical devices using a Google Assistant and Amazon Echo
- Lambda function AWS for AWS IoT Button and Alexa and Google Custom Skill, Hosted on Amazon AWS EC2 Instance to run Node JS on Linux platform, Used AWS bucket for backup database

UNIVERSITY PROJECT

Jan '19 – Apr '19	**Machine Learning Project**	**Western University**

Project: **User's travel rating (Clustering problem)**
Hardware/OS: Linux
Tools/Library/Other: Python 3, Keras, NumPy, Sklearn, Amazon SageMaker
Role: Developer, Team Member
Overview:
In travel review, based on users rating on social media say After pre-processing the dataset, the problem reduced to Clustering problem. The objective of the problem is to cluster the range of ratings provided by various consumers in various places they have visited.
- This project helps to solve problems using multiple clustering techniques and find the average ratings given by users on different places.
- Implement by applying various methods, custom model and pre-built libraries in python by understanding the process, compare and evaluate results.
- Moreover, explore more about cloud technology in Machine learning like Amazon SageMaker.

Jan '19 – Apr '19	**Software Architecture project**	**Western University**

Project: **Microservices based The Yellow-Pages book**
Hardware/OS: Linux
Tools/Library/Other: Node JS, MongoDB
Cloud: IBM Bluemix
Role: Developer, Technical Lead, Software Architecture design, Team Member
Overview:
The purpose of the project is to build microservices and deploy on IBM cloud Bluemix and manage services. A project provides directory information regarding Ski Resorts, Restaurants, Museums, and Fortune 500 Companies.
- Built various software architecture diagrams such as Allocation view, Component & component view, Sequence diagram, and a user-case diagram for each microservices.
- Created authentication microservices and accessible to only authenticated users.
- Deployed all the microservices on IBM Bluemix cloud and built a process for easily maintainable and update microservices using Registry and Gateway.

Aug '18 – Jan '19	**Data Analytics Project**	**Western University**

Project: **The default of credit card (Classification problem)**
Hardware/OS: Linux
Tools/Library/Other: Python 3, TensorFlow, Keras, NumPy, Sklearn, Tkinter
Role: Project Lead, Developer, Team Member
Overview:
It is a GUI prototype to find defaulters of credit card from a database. The purpose of the project is how to reduce the defaulters among the list of customers, and make a background check on whether to provide the loan or not and to find promising customers.
- Various methods apply such as Logistic Regression, Decision Tree and Feed-forward Neural network to develop models of risk prediction.
- Understood and applied the concept of Machine learning supervised learning approach with neural network
- Database from UCI which has 24 attributes and 30,000 tuples.

Aug '18 – Jan '19	**Web Technology Project**	**Western University**

Project: **Amazon Clone Website**
Hardware/OS: Linux
Tools/GUI/Other: Node JS, Angular 7, JavaScript, JSON, HTML, CSS, Apache2, OAuth2.0
Cloud: AWS EC2
Role: Frontend and Backend Development, Database Design, Deployment on Cloud
Overview:
The purpose of the project is to design and develop Amazon clone website with Authentication Method, Dashboard, User Profile, Cart functionality. Admin dashboard to check all the product list, manage users and products
- Developed backend and REST APIs for authentication, update a user profile, manage admin dashboard with secure handling, code duplication.
- Frontend developed in Angular 7 with multiple browsers supports, responsive and handled proper set of response from the backend.
- One of the best-developed projects in a class with secure handling, easily extendable and maintainable code.

EDUCATIONAL QUALIFICATIONS

Degree	School/College	Year	CPI/Percentage
Master, Software Engineering	University of Western Ontario, Canada	2019	A Grade
B. Tech, Electronics & Communication Engineering	Indus University, India	2016	8.81/10