Vedant Vohra

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EDUCATION

University of Houston **Aug 2021 – (Expected) May 2023**
*Master of Science in Computer Science - Current CGPA **3.67*** *Houston, TX*

Keshav Memorial Institute of Technology (affiliated to JNTUH)) **Sept 2014 – May 2018**
*Bachelor of Technology in Computer Science and Engineering - **68.95%*** *Hyderabad, TS, India*

RELEVANT COURSEWORK

- Data Structures & Algorithms
- Foundations of Security
- Cloud Computing
- Computer Vision
- Big Data Analytics
- Deep Learning

EXPERIENCE

Darwinbox **Mar 2018 – Oct 2020**
Senior Software Engineer *Hyderabad, TS, India*

Responsibilities:

- Reported directly to the CTO
- Owned multiple modules and handled all deliverables within those modules
- Led a team of Software Engineers across the multiple modules
- Researched, implemented, and implemented Scalable Software Architecture
- Participated in Microservice Architecture and Design discussions
- Did Code Reviews and conducted Review Meetings
- Strengthened the application's security as the lead developer in the AppSec team
- Led the R&D team
- Mentored interns, assigned and tracked tasks, and conducted training
- Owned the product's flagship module, 'PMS'. Handled production issues, implemented new features and enhancements.
- Planned and carried out platform optimization sprints. Conducted code reviews for optimization

Projects:

- **Reports module** - Led a team of developers working on building a performant, service-oriented framework for processing and generating realtime reports. — *NodeJS, MongoDB, Redis, Angular, SQS, S3, ElasticSearch*
- **Analytics module** - Built a reliable data pipeline to channel and process data from all modules in the application. Designed and built a modular and highly scalable backend framework to deliver data on demand to a powerful visual analytics engine. — *Yii, NodeJS, MongoDB, Angular, SQS*
- **Application Security** - Worked with internal and external stakeholders to identify, review, and patch varying levels of vulnerabilities. Worked with DevSecOps to establish security best practices for the whole development team. Addressed client concerns with respect to Application Security and Compliance.
- **PMS module** - Owned the PMS (Performance Management System) module. Was responsible for all development within the module — *PHP (Yii), JQuery, MongoDB, MySQL, Redis, ElasticSearch, S3*
- **Face Recognition Service** - A contactless biometric attendance system built on top of AWS services. Built an API to easily integrate face recognition into any module in the application. Researched various Liveness Detection methods and worked on a prototype for an Anti- Spoofing System using Chromatic Shift, Texture-Based and Optical Flow Analysis — *NodeJS, MongoDB, DynamoDB, Rekognition, S3, Python, Keras, OpenCV, NumPy*
- **ID Document and Receipt Parser** - Worked alongside a third-party vendor on an OCR-based engine to scan and parse relevant data from ID documents such as driver's licenses and from various types of receipts and invoices. Built it as a scalable microservice with 2 components, Training and Parsing. — *Python, R (Shiny), Tensorflow, Tesseract*

Darwinbox **Jan 2018 – Mar 2018**
Intern *Hyderabad, TS, India*

Projects:

- **Voicebot** - An intelligent assistant built into the Darwinbox Android app. Researched and compared multiple chatbot engines. Built a lightweight API server with extremely high throughput to act as a middleware between the application backend and the wit.ai NLU service, along with a DialogFlow-backed conversation engine. Also built a framework to use training data generated by wit.ai to train a custom intent classification model using the RASA NLU library — *GoLang, Python, NLTK, RASA NLU pipeline*
- **Web Crawler and Scraper** - based on js-crawler to feed training data to the Voicebot — *NodeJS, JQuery, webpack*
- **ProfanityFilter** - A profanity filter and sentiment analyzer for employee feedback built on the Sentiment Classification using Word Sense Disambiguation concept and the SentiWordNet dataset — *Python, NLTK, SciKit-Learn*
- **OCR** - Worked as part of a team on a basic OCR engine to power a receipt parser. — *Python, OpenCV, Tesseract*
- **Event registration form for Dialog on Tech event and email template for Blog** — *HTML5, CSS3, JQuery*

GGK Tech **Oct 2017 – Dec 2017**
Intern *Hyderabad, TS, India*

- **Underwent training in C# and .NET development at production scale.**

PROJECTS

Gumo | NodeJS, MongoDB, Elasticsearch, Neo4J
- A web-crawler and scraper to extract data from a family of nested dynamic web pages, with added enhancements to assist knowledge mining applications.

Camera-based Heart Rate Measurement in the Cloud | Python, OpenCV, AWS
- Heart rate estimation using a webcam. Scaled up for multiple simultaneous measurements using cloud technologies.

AroundU | Firebase, GeoFire API, Google Cloud Functions
- [Official Submission to Google Firebase AppFest 2016] An Android app which finds and notifies users about ongoing and upcoming events around them

TollSense | NodeJS, Azure Blockchain, Restbai Vehicle Recognition API, Azure Cognitive Services
- Smart Toll Booth application.

ParkingLot | Solidity, Truffle.js
- A Parking Lot management Distributed Application built on the Ethereum Blockchain.

Twitter Sentiment Analysis Research Project | Python, NLTK, Twitter API
- Gathering different NLP/NLU techniques and in particular, sentiment analysis techniques to study and compare them using a Twitter dataset.

SKILLS

Java, NodeJS, Python, PHP, JQuery, Angular, Typescript, MongoDB, SQL, Neo4J, ElasticSearch, Redis, Microservice Architecture, AWS, Linux, GIT, Docker, Machine Learning, NLP, NLU, Computer Vision, Tensorflow, Blockchain, JIRA project management

PUBLICATIONS

A Glimpse Under the Hood of Face Recognition at Darwinbox **20th November, 2020**
Tech@Darwinbox

A walkthrough of the implementation of Face Recognition in the Darwinbox mobile application

ACTIVITIES

KMIT AI Club **2017-2018**
Student Mentor

Helped organize discussion sessions and activities for the AI club.