VARUN SAI CHILKURI
SOFTWARE DEVELOPER
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Education

NEU (Northeastern University)   Boston, USA [Jan. 2019 - Present]
Master of Science, INFORMATION SYSTEMS
Relevant Courses : Algorithms, Web Development,Advanced BigData Indexing,Database Management and Design,BigData Engineering tools and Methods, Web design and Development,Data Science Tools and Methods

BITS (Birla Institute of Technology and Science, Pilani, India)   Hyderabad, India [Aug. 2012 - July 2016]
Bachelor of Engineering(Hons.), ELECTRONICS AND COMMUNICATION
Relevant Courses : Data Structures, Object Oriented Programming, MultiCriterion Decision Making, Discrete Mathematics, Image Processing

Work Experience

Fidelity Investments, SOFTWARE ENGINEER COOP   Boston,MA [Jan. 2020 - Present]
- Undertook **productionalizing** the database environment working along with **4 other teams** in the organization for **Fidelity BondBeacon** Release.
- API **development** and **Scaling** for Portfolio Tail Risk Analysis Engine using **Spring Boot, Redis, Postgres and Oracle**
- Improved the performance of daily batch processes from **15 hrs to 3 hrs** using parallel query processing
- Developed Application for monitoring the APIs and **Daily feed(100 GB)** generated and **reporting** deviations through a workflow.
- Improved the CICD pipeline by using **Docker, Jenkins, Concourse** and hands on Experience with **ECS** orchestration..
- Optimized the database environment updates through a pipeline with **git** and **Udeploy** processes.

Northeastern University, GRADUATE TEACHING ASSISTANT   Boston,MA [Sep. 2019 - Dec. 2019]
- Responsible for mentoring and aiding a train of 200 students with their Assignments and Projects in the course.

IMImobile R&D, SOFTWARE DEVELOPER   Hyderabad,India [Apr. 2017 - Nov. 2018]
- Implemented product's **GDPR Compliance** functionality for EU-based clients from conception to deployment integrated with **alerting service**
- Implemented features in the product from ideation to testing and published RESTful API's along with A/B testing in **python django**
- Automated conversion of accessible unstructured data into a structured **knowledge graph** facilitating data integration
- Undertook **dockerization** of (7-8) NLP components in our microservice architecture along with setting up **alerting,logging and tracking** system
- Designed a multi-chatbot (**ManagerBot**) framework that replicates the clients organizational structure in which each team is accountable for its own autonomous worker bot and manager bot brings together the **shared knowledge** of its workers to react to end customers
- Developed user-chatbot conversational reporting utility using NLP and **mongo** aggregation ,map reduce and its integration with **Jenkins** and generating **Kibana UI** dashboards to search for **client-specific trends** reducing 20 hours per week of the team's resources expended

Indus Valley Partners, ASSOCIATE SOFTWARE ENGINEER   Noida,India [Jun. 2016 - Apr. 2017]
- Managed **database migration** from MSSQL to Mysql along with development of **customized tools** for data,procedures and functions migration taking into account huge data volume(**about 10 million rows per table**) and sensitivity
- Overhauled the obsolete legacy source code for archiving data on production, resulting in increased usability and **reduced run time** by **15%**
- Developed and managed a few functionality rich features in hedge fund trade reconciliation tool and made considerable changes to database schema that improved performance for on-premise application deployment by about 10%

Ericsson R&D, SOFTWARE DEVELOPMENT INTERN   Bengaluru,India [Jul. 2015 - Dec. 2015]
- Explored and analysed code design patterns. Worked in a team of 5 to design **testing** api's for the product architecture team
- Designed a bidirectional **asynchronous message transfer utility using RabbitMQ** as part of product architecture at Ericsson in python

Skills

Languages	Java, Python, C#, C, SQL, Cypher, Shell Script
Web Technologies	HTML5, CSS3, Javascript, Angular.js, Node.js, React, Express, Django, Flask, Spring boot,Redux
DevOps	Elasticsearch,Graylog, Logstash, Kibana, Docker,RabbitMQ,Redis,Kafka
Database	Mysql, MongoDB, Neo4j,DynamoDb,Oracle,Postgres
AWS Services	S3, EC2, ECS, Lambda, ECR, SNS, SQS, RDS, SES, Cloudwatch, LEX, Alexa, Route53, APIGateway
Tools and Libraries	Jenkins,SVM,Github,NLTK,spacy,boto3,Concourse

Projects

- **Elastic Cloud Computing Simulation: Java, SpringBoot** : Built an application to determine the **optimal number of instance**s of server required to handle load and request priority.
- **Ecommerce site(MERN):**Build an e-commerce application similar to Shopify using **React, Redux, React Hooks, React Router, GraphQL, Context API, Redux-Saga, Stripe and Firebase** for authentication and database.
- **Q&A answering system(full stack + NLP) :** Populated **neo4j** graph database using IMDB text data and various nlp modules(parse trees and tokenization). Build backend api's using **java spring boot** and UI in **react** for node search and relationship search for answering simple queries.
- **Large Dataset indexed Search**: developed Microservice using **Flask,Kafka queues,redis,ELK** for advanced indexing and searching dataset of 800k json documents.
- **Ocean cleaning using Particle swarm optimization:Java :** Contributed to a routing application for ocean cleaning with particle swarm optimization along with visualization using graphstream done in a group of 3