ANUSHA ALANGAR

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EDUCATION

Bachelor of Engineering in Computer Science and Engineering | GPA: 8.7/10 **Aug 2020**
PES University, ECC, Bengaluru, India

- Courses: Data Structures, Algorithms, DBMS, Big Data Analytics, Machine Learning, Artificial Intelligence, Computer Networks, Design Patterns, Operating Systems, Information and Network Security, Automata Theory, Discrete Mathematics.

Pre-University | CBSE Percentage: 93.2% **May 2016**
HAL Public School, Central Board of Secondary Education (CBSE), Bengaluru, India

- Courses: Physics, Chemistry, Mathematics, Computer Science, English.

SKILLS

Languages & Build Systems: C, C++, Java, Kotlin, Python, Scala, Go, Bash, JavaScript, Maven, Gradle, NPM, Drone.
Libraries: Node.js, React.js, Jest, Flask, Keras, Tensorflow, Numpy, Pandas, Scikit-learn, HAProxy, Micronaut, Spring Boot.
Technologies: Git, REST, Microservice, PostgreSQL, MySQL, Redis, Cassandra, MongoDB, InfluxDB, Kafka, GCP, Grafana, Prometheus, Elastic Search, Kibana, Docker, Kubernetes, Solr, ZooKeeper.

PROFESSIONAL EXPERIENCE

Software Engineer | Target Corporation, Bengaluru, India **Aug 2020 – Present**
Search | Backend / Fullstack Developer

- As part of the **Search Box and Facets** team, I work to **optimise** and **improve search autocomplete**, **query normalisation** and **completion** and product **facet suggestion optimisations** on the Target website, working on a wide variety of tech stacks incorporating **Java**, **Kotlin**, **Kafka**, **GCP** and a variety of **cloud native technologies**.
- Improved user query suggestion ranking leveraging **search prefix prioritisation**, **infix and fuzzy matching** and look-up **tries**, resulting in **higher peak Transactions Per Hour**.
- Built various services such as a **Tcin Sequence Generator**, an **efficient distributed product locator** that identifies the store location of any given product **across all Target outlets**, and a service that **consolidates product information** from various **Kafka clusters** as well as **Redis cache** in **real time** for **high data availability** during peak.
- Worked on the **migration of Target's tech stack** from **Java / Spring Boot / MySQL** to **Kotlin / Micronaut / PostgreSQL**, and to a **distributed microservice** based architecture, being instrumental in developing the company wide employee **onboarding platform**.
- Identified **critical fields** and **re-indexed** Target's fork of Metabase that interfaces with MongoDB, resulting in **reduced time taken** to visualize data from **over a minute down to sub 1000ms**.

Web Developer | Donti Technologies, Bengaluru, India **Jan 2020 – Feb 2020**
Internship | Fullstack Developer

- Developed a **new company website** with a comprehensive new interface using React, including a new **shopping cart system**.

PROJECTS AND CONTRIBUTIONS

- **Accentrix –** Developed a **Machine Learning** system that performs **accent conversion** and **classification** through mapping of Mel Frequency Cepstral Coefficients (**MFCC**), which are **vector features** that describe the short-term power spectrum of a sound. MFCCs of the source accent are passed through a **neural network** in order to convert them into the MFCCs of the target accent. To obtain the accuracy of this transformation, a **classifier** was built which provides the result pertaining to how much the converted MFCCs resemble the target accent. A **React** web app was developed to serve as an interface**.**
- **Crypticket -** Designed and built a **network-less cryptographic token generation**, management and verification platform by serving a **React** based **Responsive** Progressive Web App (**PWA**) using the **Local Storage** API, leveraging **public key cryptography** over an **EdDSA Elliptic Curve** for digital signature generation and verification.
- **LookUpBloodDB -** Built a comprehensive platform with a native **React** interface and a **RESTful Flask** and **SQL** backed database aimed at locating the **nearest available** blood bank by **consolidating blood availability** and interfacing with **blood donation databases** across branches and organisations.
- **YTrendNet –** Analysed and performed a deep dive into the Kaggle Trending YouTube Video Statistics dataset, leveraging **feature contribution** and **encoding** techniques to transform the results of **sentiment analysis** to train an **Artificial Neural Network** to infer how long a YouTube video stays trending.

ACHIEVEMENTS AND AWARDS

Target Corporation | Recognition Award **Oct 2021**

- For completing an end to end implementation of the **Tcin Sequence Generator** as part of the **enterprise search pipeline**.

CBSE | Computer Science Topper **Jun 2016**

- For scoring **100/100** in Computer Science in 12th grade finals.

International English Olympiad | 324th rank **Nov 2013**