**Anusha Alangar**

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**education**

**Master of Science in Computer Science Expected May 2025**

Arizona State University **Tempe, USA**

* Foundations of Algorithms, Distributed and Multiprocessor Operating Systems, Fundamentals of Statistical Learning and Pattern Recognition

**Bachelor of Engineering in Computer Science and Engineering August 2020**

PES University **Bengaluru, India**

* 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

**technical skills**

Languages & Build Systems: C, C++, Java, Kotlin, Python, Scala, Go, Bash, JavaScript, Maven, Gradle, NPM, Drone

Libraries: Node.js, React, Flask, Keras, Tensorflow, Numpy, Pandas, Scikit-learn, HAProxy, Micronaut, Spring Boot, Jest, JUnit

Technologies: Git, REST, Micro service, GCP, Grafana, Prometheus, Elastic Search, Kibana, Docker, Kubernetes, ZooKeeper

Data: PostgreSQL, MySQL, Hadoop, Redis, Cassandra, MongoDB, Solr, InfluxDB, Kafka

**experience**

**Software Engineer, Search | Backend / Full Stack Developer August 2020 - June 2023**

Target Corporation **Bengaluru, India**

* As part of the Search Box and Facets team, I worked to optimize and improve search autocomplete, query normalization, query completion and product facet suggestion optimizations on the Target website, working on a wide variety of tech stacks incorporating Java, Kotlin, Kafka, GCP, and cloud native technologies.
* Improved user query suggestion ranking leveraging search prefix prioritization, fuzzy matching and look-up tries, resulting in higher peak Transactions Per Hour.
* Built Tcin Sequence Generator, an efficient product locator that identifies store locations of any given product across all Target outlets.
* Developed a service that consolidates product information from different Kafka clusters as well as Redis cache in real time for high data availability during peak.
* Worked on migrating Target’s tech stack from Java / Spring Boot / MySQL to Kotlin / Micronaut / PostgreSQL, and to a distributed micro service based architecture.
* Was instrumental in developing Target's 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 Development Intern, Full Stack Developer January 2020 - February 2020**

Donti Technologies **Bengaluru, India**

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

**project experience**

* Accentrix – Designed a machine learning system for performing accent conversion and classification through mapping of Mel Frequency Cepstral Coefficients (MFCCs, vector features describing the short-term power spectrum of sound). Source accent MFCCs are passed through a vector transformer resulting in target accent MFCCs. A classifier then gauges the resemblance of converted MFCCs to target accents. 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 organizations.
* YTrendNet – Analyzed and performed a deep dive into the Kaggle Trending YouTube Video Statistics dataset, leveraging feature attribution and encoding techniques to transform the results of sentiment analysis for training an Artificial Neural Network that infers how long a YouTube video stays trending.

**awards & honors**

**Recognition Award October 2021**

Target Corporation **Bengaluru, India**

* For innovating and building an end to end implementation of the Tcin Sequence Generator as part of enterprise search pipeline.