

JALEND BANTUPALLI

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EDUCATION

University of California San Diego September 2023 - December 2024*
MS in Computer Science and Engineering **4.0/4.0**
Selected Courses: Graduate Networked Systems, Web Mining and Recommender Systems, Convex Optimisation

Indian Institute of Technology, Kharagpur 2018 - 2022
B.Tech in Computer Science and Electronics Engineering **9.45/10**
Selected Courses: Algorithms, Computer Architecture and Operating Systems, Complex Networks

SKILLS

Programming Languages	C/C++, Python, Golang, Java, JavaScript
Cloud & Distributed Systems	GCP, Docker, Borg, Consistent Hashing, RAFT
Machine Learning Tools	Pytorch, Tensorflow, OpenAI, Langchain
Databases & Storage	DynamoDB, Redis, SQL, SQLite

EXPERIENCE

Google Jul 2022 - Aug 2023
Software Engineer Python, C++, Broadcom SDK, Borg, Docker, GCP

- Engineered and deployed a **scalable system** for routing **L3 miss packets** in **Google Switches** utilizing **Broadcom SDK**, improving network packet handling and performance.
- Increased **root cause analysis speed** by 2x for SREs, enhancing **diagnostic capabilities** and troubleshooting efficiency across **GCP's infrastructure**.
- Improved **network performance analysis** and troubleshooting by integrating real-time **VLAN monitoring**, enhancing **network visibility** and **operational efficiency** in **large-scale infrastructures**.

Microsoft May 2021 - Jul 2021
Software Engineer Intern Microsoft Dynamics CRM, JavaScript, REST API

- Engineered a custom **Config entity** in Microsoft Dynamics CRM to store and manage configuration details for various system entities, improving **system organization** and **adaptability**.
- Decreased post-production **unmanaged customizations** by 30%, significantly boosting **system flexibility**.
- Designed and implemented a **centralized configuration management system** in **Microsoft Dynamics CRM**, enabling dynamic **metadata retrieval** via **REST API calls**, increasing feature deployment efficiency by 40%.

PROJECTS

Dropbox clone Golang, Object oriented programming, Parallel Programming, Distributed Systems

- Engineered a **fault-tolerant** and **scalable distributed file storage service** for **cloud-based synchronization** using **Consistent Hashing** and the **RAFT consensus algorithm**.

Lunch Planner App Java, Android Development

- Designed an **Android application** that utilizes the ZOMATO API and the Google Play Services location API to provide **customised restaurant recommendations** based on the user's location proximity and user-selected criteria (such as distance, type of cuisine, category, rating).

Decoding Demographics for Indian names Python, Pytorch

- Designed and fine-tuned ML models to decode demographics from Indian names for **studying bias** in the Indian education system culminating in a **publication** at **SocInfo 2022**.

TEACHING EXPERIENCE

CSE142L - Computer Architecture Proj. UC San Diego

- Served as a Teaching Assistant for Computer Architecture, effectively facilitating discussion sessions, developing course materials, and mentoring 310 students on topics like **CPU design and memory hierarchy**.