

GIRISH MALLYA

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EDUCATION

The University of Florida, Gainesville, FL

Expected Aug 2023

Master of Science in Computer Science

Relevant Courses: Analysis of Algorithms, Computer Networks, Math for Intelligent Systems

KLE Technological University, Karnataka, India

Aug 2015- Aug 2019

Bachelor of Engineering in Computer Science **GPA: 8.5/10**

Relevant Courses: Data Structures, Unix System Programming, Database Management Systems, Operating Systems

CORE SKILLS

Programming Languages: Python, Golang, Ruby, Shell Scripting, Java

Web Technologies: RESTful APIs, gRPC

Cloud Technologies: AWS (SQS, Lambda, EC2, S3, API Gateway, CloudWatch, SES), CircleCI

Databases: MySQL, Amazon RDS, DynamoDB, Redis

Frameworks: Ruby on Rails, Flask, Serverless

Software / Tools: Git, Kubernetes, CI/CD, Linux, Docker

PROFESSIONAL EXPERIENCE

Amagi Media Labs, Bangalore, India

July 2019 – Aug 2021

Software Engineer - Enterprise Cloud Engineering

- Worked on features for Amagi's award-winning broadcast platform called **Cloudport** using reusable, scalable and efficient code, according to industry level conventions, principles and patterns
- Developed a data purging algorithm designed to save cloud costs, while preventing data loss. Reduced the cloud storage cost by up to **60%**
- Designed & built serverless media ingestion solution with **redundancy** and **auto recovery** using AWS services like S3/SQS and EventBridge. Handled the entire software development lifecycle for this project.
- Worked closely with major customers like **NBC Universal** to understand business requirements for dynamic graphic generation and provide pragmatic solutions to meet these needs.
- Involved in the training of interns in the organization in basic skills like Unix System Programming and Git

ACADEMIC PROJECTS

Implementation of P2P file transfer network [[Java](#), [Socket Programming](#)]

Fall 2021

- Developed a distributed file transfer system topology based on P2P protocol. Implemented a few features of BitTorrent file sharing protocol, introduced a choking and unchoking mechanism for congestion control.
- Implemented all operations using TCP, which consists of handshake messages and actual messages.
- Implemented a multi-threaded file sharing server which splits files into chunks of configurable sizes and distributes the chunks to multiple clients simultaneously.
- Implemented client socket which has multiple threads for connecting, downloading, data integration and sharing data with other clients.

Concept Hierarchy Tree [[Python](#), [Flask](#)]

June 2018

- Designed a data structure that stores data in a hierarchical manner by ranking items in an abstract tree.
- Clustered items into different levels on the tree based on their similarity to a given input node.
- Developed a ranking system using *Cosine Similarity* and *Jaccard Index* to find out "likeness" among items.
- Built a recommendation system by using the *Concept Hierarchy Tree* on data scraped from Amazon listings.

ACHIEVEMENTS

- **Finalist at Bosch Inscribe 2017 by Robert Bosch, India** - Presented a paper on improving the performance of self-driving cars using Conway's Game of Life AI model (*Top 5 among 700+ teams*)
- **Finalist at HackWithInfy 2018 by Infosys, India** - Finalist at annual national level coding contest organized by Infosys. Was offered a job as a Systems Engineer Specialist at Infosys. (*Top 100 out of 50000+ entries*)

PUBLICATIONS

- **A Framework For Automatic Diagnosis of Psychological Disorders** - Government funded research project in collaboration with a local psychiatric clinic to classify mental disorders. ([10.1109/ICACCCN.2018.8748450](https://doi.org/10.1109/ICACCCN.2018.8748450))
- **Witty City Smart City on an Intelligent Conway Grid** - A self-learning and evolutionary rule based algorithm to generate smart city layouts. ([10.1007/978-981-16-1089-9_39](https://doi.org/10.1007/978-981-16-1089-9_39))