Aishwarya Trickangode Kaliyamardhanan

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EDUCATION

- **University of Florida** — Gainesville, Florida
  Master of Science, Computer and Information Sciences; GPA: 3.72/4.0 — *August 2022 - May 2024*
  Relevant Coursework: *Analysis Of Algorithms, Distributed Operating System Principles, Internet Data Streaming, Advanced Data Structures, Human Computer Interaction*

- **Vasavi College of Engineering** — Hyderabad, India
  Bachelor of Engineering - Information Technology; CGPA: 8.51/10.0 — *August 2016 - September 2020*

TECHNICAL SKILLS

- **Languages**: Python, Java, C, C++, JavaScript, SQL, Bash, HTML, CSS, PHP
- **Frameworks**: Scikit, NLTK, TensorFlow, Keras, Django, Flask, NodeJS
- **Tools**: Kubernetes, Docker, GIT, PostgreSQL, MySQL, SQLite
- **Platforms**: Linux, Web, Windows, AWS, GCP, Azure
- **Software Principles**: MVC, Unit Testing, Agile Methodologies, CI/CD, Jenkins
- **Software**: Visual Studio, Git/Github
- **Other Tools and Technologies**: Apache Kafka, MySql, ElasticSearch, WaveGan Architecture, vim, perforce, Jira, Kibana, Matlab, Pytorch, Panda, Nginx

WORK EXPERIENCE

- **Fire Neural Network** — Gainesville, Florida
  Data Scientist Intern — *May 2023 - Present*
  - Working in the Lightning Pairing Team where some of my responsibilites include developing and implementing algorithms and models to forecast the likelihood and severity of forest fires in specific regions, collecting and analyzing various environmental and geographical data, including weather patterns, vegetation indices, topography, and historical fire incidents. collaborating with a multidisciplinary team of researchers, engineers, and domain experts to identify key factors and variables that contribute to forest fire risks
    Skills: python · Apache Kafka · Microsoft Azure · GIS

- **University of Florida** — Gainesville, Florida
  Graduate Student Assistant — *March 2023 - Present*
  - Working as a Computer Science Graduate Student Assistant (Webmaster) under the guidance of Dr. Aditya Singh.
  - Successfully hosted SERVIR Geospatial Application Template 2023 (Django based template) on AWS by creating an EC2 instance and creating S3 buckets. For the configuration, have also made use of Google cloud and have enabled services and API's which have a dependency on Google Earth Engine.
  - Set the project with Nginx, Gunicorn to mainly handle all the incoming requests and route the traffic to.
  - Route 53 (DNS) to map the instance IP address with the domain name .
    Skills: Nginx · gunicorn · Amazon Web Services (AWS) · AWS Elastic Beanstalk · Django · Google Earth Engine · python

- **SenseHQ** — Bangalore, India
  Software Engineer — *November 2021 - August 2022*
  - Worked in the Implementation Engineering team where some of my responsibilities included performing all types of data syncs from initial syncs to all types of field syncs including simple field syncs, complex field syncs, related and derived field syncs for various Application Tracking Systems consisting of thousands of agencies to the Sense platform which is used to perform and improve various candidate engagement actions.
    Platform : Linux **Languages** : Python, Sql **Database** : MySql, ElasticSearch, PostgreSQL **Tools** : vim, git, Pycharm **Other Tools and Technologies** : Kibana, Jira, Apache Hive

- **FactSet** — Hyderabad, India
  Software Engineer II — *June 2020 - November 2021*
  - As a key member of the News Distribution Team some of my responsibilities were related to alerting and searching services, API's and improving their performance and creating mechanisms to receive data, extracting, processing and storing the data and migrating key notification systems/API to cloud infrastructure and participating in the on-call rotation by providing support to clients and internal teams.
  - Enabling throttling to endpoints of searching services and improving the request rates by 25% and also migrating saved searches of a retiring feed to a new feed.
  - Performed many bug fixes and improved searching performance and comfortable with JIRA and Agile workflow.

- Also mentored the new joiners, reviewing their work. Subsequently, promoted to the position of Software Engineer-II **Platform** : Linux, Windows **Languages** : C++, Python, Sql Database : MySql, ElasticSearch **Tools** : vim, git, perforce, VSCode **Other Tools and Technologies** : NGINX, Kibana, Jira

- **FactSet**   Hyderabad, India
  - *Intern*   *January 2020 - May 2020*
  Built client facing saved search alerts and created supporting dashboards. **Platform** : Linux, Windows **Languages** : C++, Python, Sql Database : MySql, ElasticSearch **Tools** : vim, git, perforce, VSCode **Other Tools and Technologies** : NGINX, Kibana, Jira

ACADEMIC PROJECTS

- **Gossip Simulation**: Designed realistic topologies like Line, 2D, and 3D Grids and reached information convergence of 10K nodes in 192 seconds. Developed a Push Sum algorithm for aggregation of values in real-world use cases like Sensor Networks. Simulated gossip, or rumor passing, via peer-to-peer communication among asynchronous nodes in a network. Technologies and Methods : Erlang, Gen-Servers, Fault Tolerance Handling by Supervisors(Fall '22)

- **BitCoin Mining**: Built a Bitcoin miner program in a Client-Server architecture utilizing Erlang's Actor Model; this distributed computing implementation could mine more than 500 coins in 14.5 seconds; this compact application could reach a peak performance of mining coins with up to nine leading zeroes. Technologies and Methods : Distributed Programming, HTTP, Erlang, Remote Procedure Calls (RPC) (Fall '22)

- **Genrate Synthetic Audio Waveforms**: Built a model using TensorFlow implementing WaveGan Architecture to generate synthetic audio waveforms using TensorFlow. It includes the necessary components such as the generator and discriminator models, the training loop, the loss function, and the gradient penalty calculation. Technologies and Methods : Python, TensorFlow, numpy, DeepLake, Nsynth datasets

HONORS AND AWARDS

- One of the Top 5 Winners at Amazon Coding Challenge for Women conducted across India - 2021
- One of the top 5 finalists for developing an android application for Leaf Disease Detection in the Smart Rice Hackathon conducted at ICAR - Indian Institute of Rice Research, Hyderabad, India - 2019
- One of the Top 3 Winners for Best Project for Theme Based Project conducted during 6th semester for the Academic year 2018-2019 at Vasavi College of Engineering, Hyderabad, India. Project Title : Crime Rate Analysis, Theme : Big Data Analytics.