Mohith Jothi Kannan

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Education

- **Arizona State University** — Aug 2022 – May 2024
  Master of Science in Computer Science; GPA: 3.89/4.0 — *Tempe, AZ*
  - **Relevant Coursework**: Foundations of Algorithms, Software Security, Software Testing, Data Processing at Scale, Data Mining, Spatial Data Science, Natural Language Processing
- **Vellore Institute of Technology** — Jul 2017 – Jun 2021
  Bachelor of Technology in Computer Science; GPA: 8.39/10.0 — *Vellore, India*
  - **Relevant Coursework**: Data Structures & Algorithms, Database Management, Operating Systems, Web Programming, Software Engineering, Theory of Compilers, Computer Networks, High Performance Computing, Data Visualization

Experience

- **Full Stack Developer** — Jun 2023 – Present
  iQuadra Information Services — *Atlanta, GA*
  - Engineered **serverless** Manufacturing Queue web apps, allowing Bernard Group's warehouse coordinators to monitor jobs & track the status of orders
  - Architected AWS **CloudFormation** Stack for establishing duplex connections thorough Java **Lambdas** with **dynamoDB** via **WebSocketAPI**, to stream & update operational live data, eliminating network latency by **18%**
  - Designed an **Natural Language Processing** based **web scraping** model using Spacy Python, esclating iQuizUAnswer marketing productivity by **55%** in outreach activities cutting down manual search
  - Implemented a full-stack app with **Redux** based React state management & **Express.js** backend empowering the marketing team with an interactive dashboard to access web scrapped data stored in AWS RDS
- **Data Engineer** — July 2021 – Aug 2022
  Wipro Limited — *Bengaluru, India*
  - Built logical schema of organisational process, performed **ETL** procedures & carried out validation for sustainability KPI of 3 affiliates in SABIC Corporation using the data historian software
  - Conducted data migration for all organizational elements from Microsoft SQL Server to OSIsoft Servers for further analytics
  - Designed interactive **Tableau** dashboards for comprehensive visualization of sustainability KPI metrics, collaborated with clients to identify & implement a targeted **6% reduction** in CO2 emissions

Academic Projects

- **Moving Object Trajectory Data Visualization** — Nov 2022
  Spark SQL, Scala, Finagle API, React, Deck.gl, JavaScript — *Arizona State University*
  - Developed a full-stack application leveraging Spark SQL to perform **Spatial range**, **Spatio-temporal range** & **KNN** queries on NYC taxi trips dataset enabling efficient data exploration & decision-making based on spatio-temporal aspects
  - Implemented query result retrieval using the **Finagle API** in **Scala**, allowing seamless communication with the backend to retrieve & process query results within **300 milliseconds** on an average
  - Rendered realtime responsive spatial visualizations enabling stakeholders to understand movement patterns, identify hotspots, & make informed decisions for urban planning with the **deck.gl React** library
- **Air Quality Prediction App** — Apr 2021
  Python, Streamlit, TensorFlow, Scikit-learn, Seaborn — *Vellore Institute of Technology*
  - Utilized OpenWeather API to retrieve **real-time** weather for predictive analysis & developed web app that forecasts PM2.5 levels with a trained **random forest model** that has an accuracy of **67%**
  - Achieved **3rd** rank at the 2021 Saltiga **IEEE Conference** by conducting data mining for optimal model selection using historical pollution data & presenting compelling findings from **Exploratory Data Analysis**
- **Facial Detection based Attendance Management System** — Nov 2020
  Python, OpenCV, Tkinter
  - Leveraged Haar-Cascade for accurate Face detection and employed Linear Binary Pattern histogram algorithm for efficient face recognition
  - Developed using Python and OpenCV for robust image processing, coupled with a user-friendly interface created with tkinter
  - Streamlined attendance tracking, contributing to enhanced efficiency and reliability in real-world applications

Skills

- **Languages**: C/C++, Python, Java, JavaScript (ES5/ES6), TypeScript, SQL, Scala
- **Databases**: MySQL, PostgreSQL, MongoDB, DynamoDB
- **Web Technologies**: Vue, React, SpringBoot, Node.js, HTML/CSS, Websocket APIs, RESTful APIs, GraphQL, Tailwind
- **Tools**: Git, Postman, JUnit, Selenium, Linux/Unix, Jira, AWS(Lambda, APIGateway, EventBridge, S3), Tableau, Jenkins, CI/CD