

# 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 the Queues 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 responsive app with **Redux** based React state management & **Vert.x** 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 OSIssoft 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 ML 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, React*  
Vellore Institute of Technology
  - A python-based face detection/recognition system designed using Haar Cascade & Linear Binary Pattern Histogram algorithm for campuses to regulate entry of only fully vaccinated individuals.
  - Leveraged OpenCV for robust image processing, coupled with an adaptive & responsive user interface using React

## SKILLS

- **Languages:** Java, JavaScript (ES13), Python, C/C++, TypeScript, SQL, Scala
- **Databases:** MySQL, PostgreSQL, MongoDB, DynamoDB
- **Web Technologies:** React, Redux, Vert.x, SpringBoot, Node.js, HTML/CSS, WebSocket API, RESTful API, GraphQL
- **Tools:** Git, Postman, JUnit, Selenium, Linux/Unix, Jira, AWS(Lambda, APIGateway, EventBridge, S3), Tableau, Jenkins, CI/CD