Mikhael Zacharias Thomas

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EDUCATION

University of Pennsylvania   **Philadelphia, PA**
Master of Computer Science (MCIT)   *May 2025*
GPA: 4.0
Coursework: Data Structures, Big Data Analytics, Algorithms, Computer Systems, Artificial Intelligence

Netaji Subhas Institute of Technology   **New Delhi, India**
Bachelor of Engineering - Mechanical Engineering   *June 2021*
Merit Scholarship Recipient for Academic Excellence (Top 5%)

WORK EXPERIENCE

Xebia   **New Delhi, India**
Software Developer   *January 2021 – June 2023*
- Backend Developer for a customer relationship management(CRM) tool of the 6th largest retail bank in India
- Developed and maintained over 50 **RESTful** APIs using **Java Spring Boot**, focusing on creating easy-to-use and reliable backend systems essential for the CRM tool's performance
- Implemented the **microservices architecture** to break down the CRM system into 30 smaller modules
- Revamped data retrieval with **SQL** indexing, **ElasticSearch** pagination and by developing filters which lead to cutting load times by 25% and enhancing the accuracy & relevance of information for the bank's staff
- Developed and released key features, such as the Customer Dashboard, retail asset management system, search history, and user role management, driving a 30% increase in user engagement
- Leveraged **Spring Data JPA** for sophisticated data handling and object-relational mapping
- Utilized **Kubernetes** for efficient deployment and scaling of the microservices
- Collaborated with cross-functional teams including FrontEnd, Mobile and Quality Assurance(testing)
- Enhanced code quality through rigorous code reviews

National Institute of Advanced Studies   **Bangalore, India**
Summer Research Intern   *June 2019 – July 2019*
- Conducted literature review of 5+ research paper on topics such as MothNet and non-linear filters and understanding their applications in Image processing
- Focused on exploring the integration of Chaos Theory with **Convolutional Neural Networks** (CNNs) using **Python** and **Tensorflow**

PROJECTS & LEADERSHIP EXPERIENCE

COVID-19 Clinical Data Analysis   *November 2023 – December 2023*
- Conducted an analysis on a COVID-19 dataset encompassing over 500,000 patient records, aimed at classifying cases and mortality rate which involved examining demographics, medical history, and outcomes to identify factors influencing disease severity
- Leveraged **Apache Spark on AWS** to handle the large volume of data
- Employed a range of **machine learning models**, including logistic regression, random forests, and gradient boosting to accurately predict the likelihood of COVID-19 infection and associated mortality, culminating in a 90% accuracy rate in mortality predictions

Whiteboard [https://white-board-366d-jekv4rjow-likemike3372.vercel.app/]   *December 2019 – January 2020*
- Created a whiteboard using **JavaScript, HTML** and **CSS**
- Implemented the Undo-Redo feature using arrays as stacks, allowing users to easily revert or restore changes

IEEE NSIT, Student Branch
General Secretary   *July 2019 – April 2020*
- Organized the NSIT Hackathon with more than 700 registrations from all over the country
- Held bi-monthly coding challenges and tests to help students prepare for online tests & interviews
- Recipient of the **IEEE Outstanding WIE Student Volunteer Award** 2019-2020 which is given to only 2 students annually across the state

SKILLS

Languages & Frameworks: Java, C, C++, Python, JavaScript, AWS, Spring Boot, React, Flask, NodeJs
Database/Data Science: SQL, ElasticSearch, Numpy, Pandas, Spark
Tools & Methodologies: Git, Jenkins, Tensorflow, IntelliJ, Agile Methodology