# Joshua Mathew

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# **EDUCATION**

### The University of Texas at Dallas, Richardson, TX

B.S. in Information Technology and Systems

May 2025 GPA 3.7/4.0

#### **TECHNICAL SKILLS**

Programming Competency: Typescript/Javascript, HTML/CSS, Java, Python, C++/C#, SQL

Frameworks & Databases: ReactJS, NodeJS, ExpressJS, Vite, Jest, TailwindCSS, MongoDB, Google Bucket, DynamoDB

Software Tools: Git, Github, AWS, Docker, Redux, Postman, JIRA, Tableau, Figma, Confluence

**AWS Certified Cloud Practitioner** (Issued: August 2024)

#### PROFESSIONAL EXPERIENCE

**Fannie Mae** – *Software Engineer Intern*; Dallas, TX

May 2024 - August 2024

- Working in Multifamily Asset Management on the cloud servicing team focused on automating loan underwriting
- Developed a Lambda function, automating data extraction from forms and generating loan comparison quotes 40% faster
- Wrote comprehensive **Mockito** unit tests and refactored code to ensure high code quality, reaching **92%** coverage
- Implemented automated testing in Jenkins, and utilized UCD and Cloud Watch for monitoring and debugging
- Documented internship findings on Confluence to assist with onboarding new members, reducing ramp up time
- Technology Used: Java, Python, AWS, Jenkins, Terraform, DBeaver, Toad

Resi Media – Software Engineer Intern; Dallas, TX

May 2023 – August 2023

- Contributed to the full-stack development of the Resi Studio, a RTMP streaming service used by over 5000+ organizations
- Developed **6**+ mobile responsive pages utilizing **ReactJs** and **Typescript**; incorporated customer feedback and deployed A/B testing to identify optimal user flows, increasing conversion rate by 20%
- Achieved a 96% coverage using comprehensive unit testing with **Jest**, and resolved 10+ bugs leveraging Redux
- Built a **GraphQL** API to create an interactive minute-by-minute viewer count feature to give clients actionable insight, aiding in improving their live streams
- Created 4+ detailed system architecture diagrams and documentations, streamlining new engineer onboarding

#### **PROJECT**

**Empower** – *Mobile App; Association of Computer Machinery* 

*Equips individuals with disabilities to navigate the world effectively.* 

- Led a team of 5 members through the SDLC, overseeing the project architecture and efficiently delegating tasks using JIRA
- Spearheaded the design and implementation a responsive mobile app utilizing **React Native**, **Expo**, and **Figma**
- Leveraged AWS services like S3 for text/audio files, Transcribe for text to speech, and Polly for speech to text integration
- Integrated the **OpenAI GPT API** to develop a customized chatbot, tailored to address questions of disabled individuals

**LangPortal** – Language Translator; Artificial Intelligence Society Mentee

English to Spanish translator and definition tool using NLP and React/Python

- Fine-tuned an NLP model on the kde4 dataset utilizing **PyTorch** to achieve a BLEU score of 54 and a loss of .7
- Built a REST API utilizing API Gateway/Lambda, capable of handling GET, POST, PATCH, and DELETE from the app

## LEADERSHIP EXPERIENCE

Product @ Dallas - Product Management Club; Founder/President; Richardson, TX

February 2024 – Present

- Established and led the first undergraduate Product Management club at UTD, fostering a community of aspiring PM's
- Collaborated Organized and hosted workshops, guest lectures, and panel discussions featuring industry professionals
- Created a curriculum to cover all aspects of PM and led lectures, keeping 30+ students engaged with interactive content
- Managing a team of 10 officers, overseeing club operations, planning, and engagement, resulting in 40+ members joining

#### Machine Learning and Artificial Intelligence Lab – Research Assistant; Richardson, TX

January 2024 – Present

- Collaborated to design and develop a machine learning algorithm aimed at identifying DDoS attacks in computer networks
- Conducted extensive quantitative research on traffic generation and intrusion detection, improving in distinguishing between normal and malicious data flows

**Noorishment** – *Business Section Leader*; Richardson, TX

June 2022 – Present

Nonprofit organization with the goal of exposing students to different career pathways

- Organized and led observation trials on 20+ students to evaluate performance and behavior and tailored lessons accordingly
- Enhanced student learning by optimizing wide range of instructional approaches and innovative classroom activities