# SHABAZUDDIN MOHAMMAD

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# Education

3.8/4.0 Master of Science - Computer and Information Science, Florida International University, Florida, USA

8.33/10 Bachelors of Technology - Computer Science and Engineering, JNTUH - CVR College of Engineering, India July 2015-June 2019

Courses: Data Structures and Algorithms, OS, DBMS, ML, AI, Data Science, Big Data, Web Technologies, IOT, Data Mining, Cloud Computing

# Skills

- Languages: C, Java, Python, C#, HTML, CSS, JavaScript, TypeScript, SQL
- **Databases :** MySQL, MongoDB, PostgreSQL, Firebase

Technologies: GraphQL, Node.js, JSON, RESTful APIs

Frameworks : .Net, React, React Native, Spring Boot, Next.js, Express, Bootstrap, Tailwind CSS

Tools: Git, GitHub, Figma, Docker, VS Code, Jupyter Notebook, JIRA, Kubernetes, IntelliJ

# Experience

### Teaching Assistant, Software Engineering, Florida International University

- Mentored over 100+ software engineering students in designing, planning, and executing software projects, focusing on Requirements analysis, system design, and project management methodologies.
- Facilitated understanding and application of complex software development concepts, including functional and non-functional requirements, project planning, system testing, software development life cycles, and system architecture.

### Software Engineer, Yash Technologies Private Limited

- Implemented routing and authentication to enhance user navigation and ensure security through username and password credentials.
- Created React screens using Stateless Functional Components as a solution to address limitations associated with Class Components.
- Implemented user authentication and authorization utilizing Spring Security.
- Designed RESTful web services using Spring Boot, incorporating modules such as DAO Service Implementation and Web Controller.

### Associate Software Engineer, Yash Technologies Private Limited

- Dec 2019 Feb 2021 • Developed custom components for a front-end user interface (UI) using HTML5/CSS3, React.js, and Node.js for the backend.
- Implemented React features including components, hooks, and context API, optimized performance with React Router, code splitting, and ٠ lazy loading, and created service calls to a web service to display data on graphs using Google Charts
- Collected, cleaned, and provided modeling and analyses for structured and unstructured data (approx. 1 million records) used for major business initiatives using R and advanced SQL queries.
- Utilized reactive forms, template-driven forms, and developed custom functions in React. is to handle form interactivity and applied transformations to data using React components.
- Implemented Test-Driven Development (TDD) in conjunction with the Agile methodology for the development of this web app.

### Software Engineer Intern, Phoenix Business Consulting

- Built an automation tool to execute scripts (Mongo, Python, Node) in production, leading to a 90% enhancement in DevOps efficiency.
- Provided technical support to more than 30+ clients, effectively resolving highly critical issues within challenging time constraints.

# Projects.

### **Full Stack Food Ordering App**

### React.js, Redux, Tailwind CSS, Firebase, Framer Motion, Stripe Payment Gateway

- Designed a modern React.js based user interface with Framer Motion Animations, deployed seamlessly on Firebase, and crafted a sleek Material UI using Tailwind CSS.
- Successfully integrated the Stripe Payment Gateway and implemented Custom API Endpoints using Node.js, Express, seamlessly incorporating Firebase Cloud Functions for enhanced functionality.

### **Full Stack Social Media App**

- React.js, Appwrite, React Query, TypeScript, Shadon, Tailwind CSS
- Developed a full stack social media app with React. is, Appwrite, Tailwind CSS, and React Query to create a hassle-free backend and implement features like infinite scroll.
- The app includes robust authentication, an explore page with posts, like and save functionality, and a beautiful UI with CRUD operations.

# Federated Learning Techniques for Advanced Malware Detection

Machine Learning, Federated Learning, PyCharm, Python, IOT, Deep Learning

 Leveraged Federated Machine Learning to improve IoT device malware detection via network communications, simulating deep learning models with the N-BaloT dataset across various configurations without sharing raw data.

# Secure Image Classification - Deep Learning for Image-Based Authentication

CAPTCHA recognition using CNN with TensorFlow/Keras

- Developed an image classifier using a Convolutional Neural Network (CNN) to recognize CAPTCHA characters. It preprocesses CAPTCHA images, applies Otsu's thresholding, and uses morphological transformations. The CNN model consists of Convolutional, Batch Normalization, Dropout and Fully Connected Layers.
- Trained the model on a labeled dataset, evaluates it on a validation set, and makes predictions on a test set. The final predictions are saved in a CSV file. The project uses TensorFlow, Keras and other libraries for image processing and machine learning.

# **Machine Learning for Face Identification**

### Optimizing Facial Recognition with Support Vector Machines and PCA

- Implemented a facial recognition project using Support Vector Machines and Principal Component Analysis. It utilizes the Labeled Faces in the Wild (LFW) dataset, employs dimensionality reduction with PCA, and fine-tunes SVM hyperparameters using RandomizedSearchCV.
- Visualized eigenfaces, displays a confusion matrix, and generates a gallery of predicted and true faces.

(GitHub)

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July 2019 - Nov 2019

Jan 2023 - Dec 2024

Dec 2023 - Present

Mar 2021 - Dec 2022