

Yash Moar

VIRGINIA TECH – M.S. CE (FALL '25) · FORMER SOFTWARE ENGINEER AT HSBC

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Education

Virginia Polytechnic Institute and State University (Virginia Tech)

M.S IN COMPUTER ENGINEERING

Blacksburg, Virginia

August 2025 - May 2027

- **Coursework:** Advanced Machine Learning, Artificial Intelligence and Engineering Applications, Database Management Systems

Vellore Institute of Technology, Vellore

B.TECH. IN ELECTRONICS AND COMMUNICATION ENGINEERING | SPECIALIZATION IN BIOMEDICAL ENGINEERING

Tamil Nadu, India

2018 - 2022

Skills

Programming	Python, JavaScript, JAVA, C++, Typescript, MySQL, LaTeX, MATLAB
CI/CD DevOps	AWS, Docker, Kubernetes, Splunk, Jenkins
Front-end	REST, Redux, React, HTML5, CSS, NextJS, NodeJs, Jest, React Testing Library
Core Competencies	Microservices, Computer Architecture, Git, Data Structures & Algorithms, System Design
Development Boards	Raspberry Pi, Arduino, NodeMCU

Work Experience

Virginia Tech

GRADER: ECE 2054 - APPLIED ELECTRICAL THEORY | ECE 3304 - INTRODUCTION TO POWER SYSTEMS

Blacksburg, Virginia

Sept. 2025 - present

- Evaluate assignments, labs, and exams for **108 students**, ensuring **accurate** and **consistent grading**.
- Assist Dr. Virgilio Centeno in managing **grading workflows** and **supporting course instruction**.

HSBC Technology

SOFTWARE ENGINEER

Pune, India

August 2022 - July 2025

- Developed and optimized microservices based web applications to **automate home loan document generation systems** for banking staff and customer operations across global markets.
- Versatile Address Component: Created **5+ Higher Order Components (HOCs)** in React to build a flexible address component adaptable to 6+ regional requirements, reducing **redundant code by 20%** and cutting regional implementation time by 30%
- Increased code coverage by 20% while **resolving 900+ Sonar and Checkmarx vulnerabilities**, reducing code duplicity by 35% and ensuring zero critical or major issues in production.
- Engineered CI/CD pipelines using **Jenkins and Terraform**, reducing deployment time by 40 minutes
- Implemented **Promises, Redux, and AJAX** to streamline application flow, enhance state management, and improve asynchronous data handling in scalable, high performance applications.
- Engineered centralized configuration management using **AWS S3**, enabling real time parameter adjustments and reducing **deployment rollback by 20%** by ensuring consistent environments across development, QA, and production.
- **Mentored** new team members and **redesigned their training curriculum**, resulting in a **40% reduction in onboarding time**.

Key Projects

Web-Based Medical Portal for Remote Patient Monitoring

INDEPENDENT DEVELOPER

Jan. 2022 - Feb. 2022

- Built a web-based medical portal supporting real-time monitoring of 5+ vitals, secure patient-doctor communication, and remote patient management using IoT integration.
- **Stack:** React.js, Node.js, MongoDB, Express.js, Socket.IO, Chart.js.

Diabetic Retinopathy Detection from Fundus Images Using MATLAB

PROJECT LEAD

Dr. Karthikeyan | Dec. 2021 - May 2022

- Lead engineer on agent-less backtracking system that can discover client device's fingerprint(including public and private IP) independently of the Proxy, VPN and NAT.
- **Stack:** MATLAB, U-Net architecture, EfficientNet, Support Vector Machine, Convolutional Neural Networks (CNN).

IoT-Based Person Locator

INDEPENDENT DEVELOPER

Dr. Sudhakar M.S | Dec. 2020 - May 2021

- Designed an intelligent IoT-based real-time person tracking system leveraging predictive analytics and DBSCAN to enhance accuracy and reliability in noisy GPS data.
- **Stack:** XAMPP Servers, Python, GPS Module, GSM Module, Arduino Uno, Airbyte, IoT Middleware.

Certifications & Awards

- 2024 **PAT on the Back Award**, at HSBC for exceptional performance and achievements
- 2023 **Pioneer of the quarter Award**, at HSBC for codebase optimization and vulnerability remediation
- 2020 **Algorithmic Toolbox**, UC San Diego | Coursera
- 2020 **Java Programming**, Duke University | Coursera
- 2020 **Data structures**, UC San Diego | Coursera
- 2020 **AI For Everyone**, DeepLearning.AI | Coursera