


ICHCHA BALIGA

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SUMMARY

Seeking Software Engineer role with 2.5 years of experience in full-stack development. Excelled at General Electric in developing scalable cybersecurity solutions and optimizing AWS Redshift data warehouses. Strong quantitative background with a focus on efficiency and maintainability in software engineering.

EDUCATION

 **College of Computing and Informatics, University of North Carolina** Charlotte, NC
MS in Computer Science - Concentration in Information Security and Privacy GPA: 3.77/4 AUG 2022 - MAY 2024

Relevant Coursework: Network Security, ML, Computer Networks and communication, Software System design and Implementation, Data Structures and Algorithms, Databases Systems, Network-based Application Development, Object Oriented Programming, Software Engineering.

Projects: Network Packet Analysis using Wireshark, VPN Tunnelling, Web Application Security Scanner, Personal Budget Tracker, Text recognition, Sentiment Classification using LSTM.

 **Bangalore Institute of Technology** Bangalore, IN
BE in Computer Science GPA: 7.54/10 AUG 2016 - AUG 2020

Projects: Cultures of India- An e-commerce website using Django, Suspect Sketch Retrieval from Linguistic Description using NLP and GAN.

SKILLS

Programming Languages:	Python, C, Java, C++, JavaScript, Typescript.
Web Development & Frameworks:	HTML, CSS, React, Node, Angular, Redux, Flask, REST APIs, Django.
Databases:	SQLite, MySQL, PostgreSQL, MongoDB, Redshift.
Machine Learning/Deep Learning:	TensorFlow, Keras, Scikit-Learn.
Data Analysis Tools:	Sisense, Pandas, NumPy, Matplotlib.
Cloud Services and Deployment:	AWS, Docker, Kubernetes, Jenkins, Git.
Domain Interests:	Cybersecurity, Data Science and Analytics, Cloud Computing, AI.

WORK EXPERIENCE

 **Office of Assessment and Accreditation, UNC Charlotte** Charlotte, NC
Graduate Assistant SEP 2022 - JUN 2023

- Redesigned the office website for the Office of Assessment and Accreditation with Drupal and designed advertising materials for the Institutional Effectiveness Certificate.
- Compiled and systematically analysed a comprehensive database of approximately 124 Diversity, Equity, and Inclusion (DEI) initiatives at the University which facilitated the identification of underperforming initiatives, streamlining the allocation of funds.

 **General Electric Company (GE) - CoreTech and Cyber** Bangalore, IN
Cyber Security Engineer APR 2022 - JUL 2022


- Collaborated on the development of a ticketing system - SWIFTT, introducing custom features such as chat support and workload management, which expedited resolution of access requests by 60%.
- Utilized Python Flask Blueprinting framework for creating a unified, scalable platform that improved the organisation, maintainability, and scalability of team's internal micro-services and web apps.
- Designed advanced email notification system on AWS Lambda using HTML and Python, which was adopted across all internal applications providing a more sophisticated and customisable method for sending notifications contributing to better-informed teams and stakeholders.
- Developed reusable web components with React JS and Redux, leading to a 30% reduction in code size, decreased development time, and improved code maintainability.

Software Engineer 1 (Cybersecurity Research Specialist) JAN 2021 - MAR 2022

- Architected a robust Role-Based Access Control (RBAC) system to manage AWS Redshift data warehouses data access permissions with optimised administrator oversight and UI/UX.
- Designed, developed and implemented custom Python Flask REST APIs for warehouse transactions, ensuring exclusive admin-only access to the application through a tailored authentication middleware, while developing Python automation scripts for revoking expired access permissions to ensure Data Loss Prevention.
- Managed the orchestration of a Jenkins CI/CD pipeline, facilitating application containerization in Docker and subsequent deployment on an AWS EC2 instance, leading to a 40% decrease in deployment failures.
- Assumed comprehensive product management responsibilities subsequent to the product manager's resignation, effectively navigating the project independently, ensuring its continuity and successful progression.

Digital Technology Co-Op JUL 2020 - DEC 2020

- Developed a feature in a codeless ETL tool to extract excel, CSV and json files from the cloud file-sharing tool BOX using Python SDKs transform them and load the data into the AWS Redshift data warehouse and vice versa.

 **Robert Bosch Engineering and Business Solutions Private Limited (RBEI)** Bangalore, IN
Software Development Intern JAN 2020 - APR 2020

- Created a robust document management system that efficiently organises, meticulously searches and safeguards the vital company documents and reports using HTML and CSS for frontend, Javascript and Amazon S3.

RESEARCH

Conducted research on Modern Intrusion Detection Systems that was reflected in the paper titled "A Survey on Intrusion Detection Systems using Deep Reinforcement Learning" published in International Conference on Artificial Intelligence and Data Science (ICAIDS), Bangalore, India - 2022.

MERITS AND CERTIFICATIONS

- Introduction to Programming using JavaScript By Microsoft. MAR 2019
- Information Security-IV by National Programme on Technology Enhanced Learning (NPTEL). JAN 2018