THARUN PALLA

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EDUCATION

North Carolina State University, *Raleigh, North Carolina* *Aug 2021 - May 2023*

Master of Computer Science - **GPA: 4.0/4.0**

Coursework: Automated Learning and Data Analysis, Design and Analysis of Algorithms, Computer Networks

Visvesvaraya National Institute of Technology, *Nagpur, India* *Jul 2014 - May 2018*

Bachelor of Technology in Computer Science - **GPA: 7.97/10.0**

Coursework: Data Structures and Program Design, Software Engineering, Operating Systems, Network Security

TECHNICAL SKILLS

Programming Languages:	Java, Python, C++
Web Technologies:	HTML, CSS, JS, ReactJS, React Native
Frameworks:	Java-Spring (Boot, Batch, Cloud, Data, Security), Django
Databases:	Oracle DB, MySQL, MongoDB
ETL Tools:	IBM Tivoli Workload Scheduler, IBM Datastage
DevOps Tools:	Docker, Jenkins, Hashicorp(Vault, Consul), Cloudera Kafka, ActiveMQ, AppD, ELK
Other Technologies:	Amazon Web Services (AWS), OpenShift

WORK EXPERIENCE

Application Developer, Barclays US - *Pune, India* *Aug 2018 - Aug 2021*

Payment Platform Modernization

- Re-architected and migrated legacy monolithic payment platform to microservices. Applied 12-factor app, Test Driven Development, and CICD methodologies to develop, containerize and deploy the applications on Openshift.
- Improved the lifecycle of the application deployment process by leveraging Spring-Boot, Hibernate, and other DevOps tools to reduce production release time by 70%.
- Enhanced features in credit card payments that minimized fraud, money laundering risk, and delays in posting payments. Reduced call volume by 500k in 12 months after Go-Live, saving ~1.3M$.

Payment File Confirmation and Settlement

- Developed applications using Spring Boot and Quartz scheduler to automate vendor payment confirmation process by generating alerts for SLA breaches, resulting in minimized delinquency risk and reduced customer complaints by 25%.
- Developed automated processes using Spring Boot, Spring Batch, and Tivoli Workload Scheduler to reduce manual errors, thus slashing processing time associated with payment settlements.

Business Card Conversion

- Developed in-house servicing of Business card customers by using the existing Consumer card infrastructure.

Sidecar Deployment

- Introduced sidecar pattern into the microservice architecture for non-container activities, including authentication through OAuth, API documentation, validation with OAS 3.0, Logging and Monitoring, and Networking.

Software Development Intern, **IBuild Innovation Limited** - *Hyderabad, India* *May 2017 - Jul 2017*

- Developed the frontend for IBHubs Startup School program using ReactJS. Developed cross-platform mobile applications for Android and iOS using Redux and Mobx state management in React-Native.
- Developed several reusable, custom components for HTML forms to build applications in React and React-Native efficiently.

ACADEMIC PROJECTS

Personality Detection using Five-Factor Model, *NCSU - Fall 21* *Sep 2021*

- Developed an interactive quiz web application to collect data and predict personality using unsupervised KMeans clustering algorithms.

Reasoning with Markov Logic Networks, *VNIT Nagpur* *May 2018*

- Used Markov Logic Networks to support inference over uncertain knowledge for modeling a beam design use case.
- Generated evidence using a probabilistic model and compared the efficiencies of Tuffy and Alchemy (Two widely used Markov logic inference engines).

Cloud Computing Project (AWS), *VNIT Nagpur* *Oct 2017*

- Modeled an application, automated its lifecycle, and deployed on OpenStack(an open-source cloud platform) with a cloud orchestration tool Cloudify.
- Developed a student registration application in Java and deployed it using Elastic Beanstalk. Integrated the application with both Relational Database (AWS RDS) and No SQL Database (AWS DynamoDB).
- Delivered video content to a specific set of users using Content Delivery Network (AWS CDN). Implemented viewing restrictions based on IP address and streaming time.