Naman Shrimali

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EDUCATION

Master of Science in Computer Science — *Aug 2021 - May 2023*
North Carolina State University, Raleigh, NC — *(Expected)*

Bachelor's in computer science and Engineering — *Aug 2015 - May 2019*
Rajasthan Technical University, Kota, India

Relevant Coursework: *Design and Analysis of Algorithms, Object Oriented Design and Development, Introduction to Artificial Intelligence, Database Management Systems, Operating Systems*

TECHNICAL SKILLS

Languages:	Java, JavaScript, TypeScript, Python, Ruby, C++
Frameworks:	Angular, React, Ruby on Rails, Node.js, Spring Boot, Spring Reactive, Hibernate, Log4j, Junit
Web Technologies:	HTML, CSS, HTTP, RESTful, OAuth2, Web Sockets
Databases:	MongoDB, Apache Cassandra, Redis, DB2, MySQL, HBASE (DB Management System)
Tools:	AWS, Azure, Heroku, Docker, Kubernetes, Jenkins, Git, Maven, NPM, Tomcat/Nginx

PROFESSIONAL EXPERIENCE

Software Engineer, IBM India Pvt. Ltd., Hyderabad, India — *Jun 2019 - Jul 2021*

- **E-commerce project for US based retail client**
  - Led a team of 5 to deliver RESTful microservices and Web Application that allowed customers to automatically place recurring orders online using **Spring Reactive** (back-end), **Angular 8** (front-end), **Jenkins** (CI/CD), **Azure cloud** (Deployment), **Swagger** (Documentation).
  - Developed framework for component and integration tests for micro-services with **JUnit5** and **MockWebServer** combined with **SonarQube** for ensuring **90%+** code coverage and fault tolerance on each deployment environment.
- **Online banking project for a major Australian banking client**
  - Developed **Spring Boot** microservices with **HBASE** for displaying customer's verified income and expenses data on a single dashboard to aid upfront customer borrowing conversations, reducing hours' worth of manual data collection and aggregation efforts.
  - Reduced service downtime by **34%** by introducing cache replication and persistence with **EHCache** and **Redis** on **Spring Boot**.
  - Identified and optimized processes hindering logic by employing optimal code design principles, effectively reducing cold starts by **10%**.
  - Developed an in-house employee-management system using **React**, **Node.js**, **Express** secured with **JWT Role Based Authorization** and deployed on **Heroku**. The application aided the management and employees to smoothly transit from office to working from home.

Full Stack Engineer Intern, StackRoute, Bangalore, India — *Jun 2019 - Nov 2019*

- Built a pluggable help desk system using **IBM Watson** that decreased response time to the customer's queries by **20%** by generating automated response, routing customer to right agent for **one-to-one chat** and displaying relevant statistics on dashboards.
- Developed several re-usable **NPM packages** using **Angular 8, Redux, Chart.js** for front-end components, **Node.js** and **Express** for backend services, unit tested with **Karma** tests. The packages went on to reduce development time for several key projects by **20%**.

Machine Learning Intern, Centre for Development of Advanced Computing, Jaipur, India

- **Open-Source QnA Transformer-based Chatbot (X-RAG)**
  - Built a **Chatbot** with **Transformers** for generating answers to questions specific to PyTorch, employing two pretrained **HuggingFace BERT**s as encoders, **FAISS** for context matching and retrieval and pretrained **BART** as decoder.
  - Collected over **10k data points** from official Pytorch documentation, forums, and video captions by building a web scrapper on Python.
- **Open-Source Object, Depth and Plane Detecting Python API (Doepd.ai)**
  - Combined 3 CNN architectures to build a REST service capable of detecting PPE objects such as *masks, hardhat, vest, boots* (**YOLOv3**), estimating monocular depth (**Intel MiDaS**) and plane segments (**NVIDIA PlaneRCNN)** from an image with a cumulative accuracy of **86%**.

PROJECTS

Role-based reviewing on Expertiza (Open-Source Contribution) — *Oct 2021 - Nov 2021*

- Introduced Role-Based Reviewing on Expertiza - a learning and peer grading platform - which enabled users to use different evaluation metrics to give peer reviews to members in agile team. Used **Ruby on Rails**, tested with **RSpec and Cucumber**, deployed on **Azure cloud.**

Work Management System (Spryly) — *Jan 2021 - Mar 2021*

- Developed a work management system facilitating agile team collaboration on **live Kanban framework** using **Angular 9** with **Redux** for front-end, **Spring Cloud, Reactive, Node.js** with **RabbitMQ AMQP, Web Sockets (STOMP)** services for back-end and **MongoDB**, **MySQL** for database.
- Secured the services with **Google OAuth2**, containerized the application with **Docker**, deployed on **AWS EC2** with **GitLab CI/CD**.

Certifications

- Microsoft Certified: Azure Fundamentals — *Apr 2021*
- Deep Learning Specialization - deeplearning.ai — *May 2019*