

# AKHIL MALLEPALLY

## EDUCATION

**Master's in Applied Computer Science** **GPA 4.00**  
**Northwest Missouri State University** **May 2022 (Expected)**

**Courses:** Analysis of Algorithms, Object Oriented Programming, Application Design: Patterns & Frameworks, Advanced Database Systems, Data Structures, Developing Web Applications

**Bachelor's in Electronics and Communications Engineering** **GPA 3.00**  
**Jawaharlal Nehru Technological University, India** **April 2017**

## WORK EXPERIENCE

**Web Developer** **GSPAN, India** **November 2018 – July 2019**

- Built and deployed a lightweight Progressive Web Application for User Management System using Spring Boot & ReactJS which made organizational administrative tasks very easy in Agile environment.
- Developed Single Page Applications (SPA) using ReactJS, and Bootstrap 3.
- Designed and processed JSON responses and requests according to different API requests.
- Implemented RESTful web services using Spring Boot and collaborated to work with Microservices.
- *Automated multiple workflows* of regression and system testing cycles using Python, increasing efficiency by 30%.

**Software Developer Intern** **Swecha, India** **June 2017 – October 2018**

- Developed an Internal School Application which manages the information about accounting information System along with Employee and Student information. Responsible for development of application from scratch.
- Used OAuth 2.0 authentication protocol respectively for security and Authentication.
- Involved in translating the product requirements into solution designs with stakeholders.
- Performed load testing and server cost analysis on AWS EC2 to optimize server size resulting in over \$500 cost reduction per month
- Delivered Technical sessions on Linux Administration, Python and IoT technologies for over 1000+ students as part of Swecha Annual Summer Internship program.

## PROJECTS

- **Peer-to-Peer File Sharing Network:** Implemented a peer-to-peer file sharing application across multiple clients along with addressing the fairness problem by implementing choke and unchoke mechanisms, like BitTorrent. (Java)
- **Movie Recommendations:** Built an application which recommends movies using microservices. Developers have the advantage of being able to run and develop with each microservice running on their local machines. Each service is built and deployed using docker. (Java, Spring Cloud)
- **Multithreaded Work Queue:** Developed a multithreaded application to distribute tasks between threads so that they can be processed concurrently using the *producer consumer* model. (Java)
- **Analyzing UT Mart Sales Dataset:** Created Dashboards and Storyboards to analyze the customer behavioral patterns and visualize the various key datapoints. In this process, we identified there is 30% profit in the sales each year. (Tableau)
- **Low-cost Mesh Network:** Developed a low-cost Mesh network communication that can be used during disaster for a means of communication that can Broadcast, Multi-cast and Uni-cast between Multiple devices. (NodeMCU)
- **Fake news detection:** Developed a web extension for chrome and Firefox browser using JavaScript which is an easy-to-use plug-in to identify the fake news generated for each visited website. (JavaScript)
- **Blog site:** Developed responsive blog site using HTML and Bootstrap to support all devices including desktops, tablets, and mobile phones.
- **Drawable handwritten digit classifier:** Implemented several models for classifying handwritten digits trained on MNIST and USPS datasets using logistic regression, SVM and Neural networks. (Python)

## TECHNICAL SKILLS

- **Languages:** Java, Python, JavaScript, SQL, HTML, CSS
- **Frameworks:** Spring, Spring Boot, React, NextJS, Django
- **Tools and Services:** Docker, Kubernetes, AWS, REST web services, Microservices, Maven, Git.