# Shrada Chellasami

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# **EDUCATION**

Northeastern University, Boston, MA

Master of Science in Computer Science

September 2022-May 2024

GPA: 3.9/4

Courses: Design Patterns, Database Management, Algorithms, Data Management Processing, Cloud Computing, Web Development, Human Computer Interaction, Mobile Application Development(IOS)

Dayananda Sagar University, Bangalore, KA

August 2018-June 2022

GPA: 3.6/4

Bachelor of Technology - Computer Science

Technical Skills

Languages: Java, Python, SQL, C++, Swift, R, JavaScript, Bash, HTML, CSS

Frameworks/Libraries: ReactJS, NodeJS, Bootstrap, Flask, REST APIs, UI/UX Design, Wireframes, Pandas, Numpy, TensorFlow, Scikit-learn, Machine Learning, Deep Learning, CNN, Natural Language Processing, AWS, Git,

Docker, Kubernetes, IOS, UIKit, XCode Databases: MySQL, NoSQL, MongoDB

Software Development: Agile, Scrum, Jira, Confluence

Relevant Experience

### Juniper Networks - Software Engineer Intern

May 2023-August 2023

- Architected and implemented a highly scalable data pipeline to extract and transform 200+ unstructured files using pandas. Programmed Python scripts for data scraping, mining and ML model deployment.
- o Built data ingestion and preprocessing pipelines on Linux utilizing bash. Evaluated large language models (LLM) for automated script generation with improved efficiency by 20%.
- o Drove agile software development and collaborated with cross-functional teams for requirements analysis of **NLP** applications. Performed testing and supported the development of features for the product.

# Dayananda Sagar University - Research Assistant

Jan 2021 - Mar 2022

- o Trained and fine-tuned a Convolutional Neural Network model utilizing TensorFlow and Keras to predict pediatric bone age, lowering prediction errors by 24%.
- o Published the "Skeletal Bone Age Determination using Deep Learning" in the ICAIHC 2022 detailing the data analysis, developed a model, enhanced productivity and improved accuracy.

## Dayananda Sagar University - Data Science Intern

May 2019 - July 2019

- Analyzed remote sensing data from MODIS satellite to compute 33 vegetation and water indexes, enhancing output accuracy by 20%.
- o Formulated and executed vegetation index calculations in R, extracting necessary bands from datasets and produced 5 heat map visualizations for analysis after calculating indexes to showcase results.

#### **PROJECTS**

#### EduHub - Canvas Clone | React, Nodejs, Bootstrap, JavaScript, AWS

September 2023 - December 2023

- Developed 25+ front-end components for core functionalities with **ReactJS** framework to deliver a seamless user experience. Deployed and hosted application front-end on Amazon EC2 instances.
- o Architected scalable back-end using Node.js and RESTful APIs integrating with NoSQL databases on Amazon DynamoDB, supporting over 1000 documents. Optimized data models and queries for performance.

## Optimized Data Retrieval for an E-commerce Website $\mid C++, OOPS$

January 2023-May 2023

- Built a highly reusable C++ server architecture using Object Oriented principles. Designed cache, storage, routing and monitoring classes with clean interfaces. Increased testability and maintainability of business logic.
- Created multi-threaded data servers and an asynchronous networking framework in C++ to handle high volumes of concurrent requests without degradation in performance. Benchmarked throughput improvements of 60%.

## Restaurant Management System | MySQL, Python, Flask, JavaScript

January 2023-May 2023

- Designed a MySQL database to store 15+ features spanning menus, inventory, orders using Python, Flask.
- o Collected requirements from over 20 users for their needs and use cases for a restaurant management system.
- o Created a UI for employees to access real-time data and resolved issues via debugging and added triggers and schedulers to update prices, salaries, track orders and more.

# Stock Market Simulator | Java, JSwing

September 2022-December 2022

- Designed an MVC based Java Application to let 100+ users understand how to invest in Stock Markets.
- Integrated AlphaVantage API for data, application included buying stocks individually, through a periodical investment, or apply Dollar Cost Averaging Strategy to a portfolio, selling stocks, evaluating portfolio at any time.
- Adopted SOLID principles, Object-Oriented Design, improved flexibility by using over 5 design patterns.