

HARSHA VARDHAN REDDY BONTHU

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Blackburg, VA

in harshavardhan97

Harsha1997

Portfolio

WORK EXPERIENCE

Software Engineering Intern

Meta

May 2022 – Aug 2022

Seattle, USA

- Implemented **Me-Pivot**: a personalized section in the Communities tab in FBLite to serve as a one-stop solution for the user to access their group posts, likes, comments and saved content. [**Hack, Native Templates**]
- Orchestrated the **GraphQL** connection to pull the Me-Pivot content of a user by leveraging Meta's Ent Schema and optimized it for performance and efficiency.

Software Engineer

Fidelity Investments

Aug 2019 – Jun 2021

Bangalore, India

- Implemented a **proactive recommendation system** to improve over 2 million customer's financial portfolio. [**Spark, Scala**]
- Designed and developed **Event-Driven Architecture APIs** to provide real-time recommendations thereby reducing the latency from a day to under a minute. [**Java, AWS, SpringBoot**]
- Developed an application that uses **Random Forest Classifier** to predict if a customer has concentrated his savings into one bucket and achieved over **80% accuracy for 30 million customers**.

Software Engineering Intern

Fidelity Investments

May 2018 – July 2018

Bangalore, India

- Developed a **full-stack** application that serves as an error notification dashboard to alert the associates for specific log errors. [**NodeJS**]
- Scraped out the information from **Splunk** logs, used **Oracle DB** to store data for future use, and sent personalized emails in case of an escalated situation. [**SQL**]

ACADEMIC PROJECTS

CODE-TO-CODE TRANSLATION USING CODEBERT AND CODET5

- Proposed a **novel technique** to implement code translation from Java to Python using the pre-trained CodeBERT and CodeT5 models and compare with the Facebook's Transcoder model.
- Pre-processed and tokenized the data from AVATAR dataset. Received a score of **53.35** for weighted N-Gram match, **59.76** for Syntax match and **45.58** for Dataflow Match.
- Achieved a BLEU Score of **52.91** for CodeT5 and **23.0** for CodeBERT model compared to Transcoder's industry standard of **68.1**.

IMMERSIVE 3D-ANALYTICS WITH STOCK DATA

- Proposed a novel way to visualizing stock data in an immersive 3D virtual environment using **Oculus Quest 2**.
- Rendered near real-time stock data over 4 different time horizons across 3 different screens against the backdrop of a virtual office background.

IDENTIFYING HATE SPEECH IN SOCIAL MEDIA

- Explored **Jigsaw Unintended Bias in Toxicity Classification** dataset for our purpose. Used SMOTE and undersampling techniques for rectifying class imbalance.
- Achieved a F1-Score of **0.913** using LSTM with Glove Twitter embeddings on a vectorized input space of 10,000 features.

EDUCATION

Virginia Tech

Master's in Computer Science

Dec 2022

Blackburg, VA

GPA: 4.0/4.0

Relevant courses: Data Analytics, Machine Learning with Big Data, Deep Learning, Virtual Environment

Motilal Nehru National Institute of Technology, Allahabad

Bachelor of Technology, Computer Science

May 2019

Allahabad, India

GPA: 8.0/10

Relevant courses: Data Structures, Algorithms, Operating Systems, Database Management Systems

TECHNICAL SKILLS

- Languages:** Hack, Java, C, C++, C#, Python, Scala, SQL, TypeScript
- Frameworks:** GraphQL, Spring Boot, Apache Spark, Node.js, AngularJS, JUnit, OpenCV, Docker
- Developer Tools:** Jupyter Notebooks, Eclipse, IntelliJ, IBM Udeploy, Unity Hub
- Technologies:** AWS, Native Templates, Unity Technologies, Apache Maven, REST APIs, Micro-services, PyTorch, Jenkins, JIRA, Git

ACHIEVEMENTS

- Received **EIA (Excellence in Achievement)** award at Fidelity for leading the Event-driven API project.
- Secured a rank of **1953** at **JEE Mains** among 1.3 million participating students.
- Served as a **Training and Placement Representative** at MNNIT Allahabad, 2018-19.
- Led a team of 200 students as **Festival Secretary** of the cultural fest of MNNIT Culrav with a budget of over **3 million INR**.
- Won **Mr. Dramatics** award for exemplary performance and winning 4 different dramatics events at Culrav, 2017-18.