

Fnu Jannat

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Education

- **Virginia Commonwealth University**, Richmond, Virginia
MS in Computer Science , GPA: 4.0 *Aug 2024 – Present*
- **CHRIST University**, Bangalore, India
Master of Computer Applications, GPA: 3.7 *Jul 2023 – May 2024*
- **University of Delhi**, New Delhi, India
Bachelor of Science in Applied Physical Science, GPA: 3.6 *Jul 2019 – May 2022*

Relevant Courses

Deep Learning and Neural Network, Machine Learning, Data Statistics using R, Knowledge Discovery, Data Science, Advanced Algorithms, Advanced Databases

Technical Skills

Programming Languages: Python, SQL, Java, JavaScript, Kotlin, C++, C, R

Frameworks & Libraries: Pytorch, Numpy, Pandas, Tensorflow, HuggingFace, React, Express.js, Next.js, Tailwind CSS

Developer Tools: Git, Postman, NPM, Visual Studio Code, Android Studio

Database & Cloud: MySQL, MongoDB, Firebase

Experience

Natural Language Processing Lab, Virginia Commonwealth University

Research Assistant

Jan 2025 – Present

- Conducted data preprocessing on large-scale NLP datasets using Python, ensuring clean, tokenized, and structured inputs for model training.
- Collaborated in building a relationship extraction model using PyTorch, contributing to model architecture, training, and implementation.
- Performed postprocessing of model outputs using TorchMetrics, enabling precise evaluation and performance benchmarking across NLP-specific metrics.

Virginia Commonwealth University, Richmond, Virginia

Teaching Assistant

Aug 2024 – Dec 2024

- Led C programming lab sessions, fostering a strong foundational understanding of algorithms, memory management, and core programming principles.
- Assessed and graded student assignments, providing targeted, constructive feedback to drive continuous improvement and conceptual clarity.
- Provided individualized support to 20+ students by diagnosing bugs, optimizing code, and guiding them through logical problem-solving techniques.

Raceme Tenders LLP, Delhi, India

Software Engineer Intern

Mar 2022 – Mar 2022

- Worked in a team of three to update the website version and migrate it to AWS Cloud for scalability.
- Optimized website infrastructure, reducing page load times by 30%.

Software Engineer Intern

Sep 2021 – Sep 2021

- Designed and implemented a web crawler to automate downloading tender files from the website.
- Utilized web scraping techniques to extract and retrieve tender documents efficiently.
- Enhanced process efficiency by automating the manual task of locating and downloading files.

Projects

GutBrainIE @ CLEF 2025 – NLP Research Challenge | Python, Hugging Face, PyTorch Lightning, W&B **Source**

- Designed a relation extraction pipeline using CNN and transformer-based models for gut-brain biome axis biomedical texts.
- Led preprocessing of 10K+ PubMed abstracts; used PyTorch Lightning and TorchMetrics for training and evaluation.

RideShare | React Native, Firebase, Node.js, Open Street Maps API

Source

- Built a real-time carpooling app with route tracking, ride booking, and Firebase-powered state management.
- Presented at an international conference and integrated Stripe for secure payments.

Tennis Video Analysis System | Python, YOLOv8, Streamlit, OpenCV, PyTorch

Source

- Built a Streamlit app to track players, ball trajectories, and court lines from tennis match videos.
- Trained YOLOv8 on custom datasets and visualized real-time statistics with overlays and keypoints.