

DIKSHA SAXENA

Buffalo, NY, 14215, dikshasa@buffalo.edu, (716)-256-7381, [linkedin.com/in/diksha-saxena98/](https://www.linkedin.com/in/diksha-saxena98/), github.com/theDikshaSaxena

EDUCATION

Master of Science in Computer Science, *University at Buffalo, The State University of New York*. GPA:3.63

December 2023

Bachelor of Technology in Computer Science, *Vellore Institute of Technology, India*. GPA: 9.01

June 2020

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, Solidity, MySQL, C, C++, HTML, CSS, Go, XML, JSON, JQuery, PostgreSQL.

Frameworks: Spring Boot, Node.js, Express.js, React.js, PyTorch, Bootstrap, Tensorflow, Flask, Transformers, NLTK, HuggingFace.

Technologies: Spring, REST API, JDBC, MongoDB, Git, Solr, Tableau, PowerBI, AWS, Docker, Kubernetes.

Certifications: Workday HCM and Integrations Core, Web Developer Bootcamp, Microsoft Azure Fundamentals AZ-900.

WORK EXPERIENCE

Research Assistant, State University of New York, Buffalo, United States.

June 2023 - Present

- Programmed a Python model for Recontextualization Detection, Localization, and Type Classification within social media posts with respect to source news articles. Conducted Intent Detection, Narrative Detection and Fact Comparisons to identify social misinformation spread. Created augmented Datasets to classify Intent between Call to Action and Demoralization.
- Leveraged libraries - scipy, spaCy, NLTK, and Transformers for Sentiment Analysis and Named Entity Recognition (NER).
- Engineered a pipeline; Used Docker for containerizing and deployed it on SemaFor platform resolving a long-standing blocker.

Solutions Architect Intern, Brainchip Inc., California, United States.

June 2023 - August 2023

- Played around with OpenCV for Data Augmentation and utilized GANs to generate Synthetic Datasets (**20,000** Images).
- Developed an Object Detection Demo for Vitamins using the FOMO ML Algorithm on Edge Impulse.
- Oversaw design of an AI Accelerator Program by gaining in-depth expertise in MetaTF. Projected to generate over **100K** dollars.

Associate Developer, IBM India Private Limited, Bangalore, India.

October 2020 - July 2022

- Completed Internal training on Java, XML, XSLT, Spring Boot, REST APIs, and Workday HCM and Integrations.
- Developed a banking application where REST APIs were utilized to perform CRUD operations, features were implemented to transfer money and a user-friendly dashboard was designed to manage profile and perform accounting operations.
- Coordinated a team of **10** to Implement HR Management Systems (SaaS) on Workday for a FAANG tech giant and helped bring down operating costs. Experimented with Adaptive Planning to forecast future financial projections.
- Introduced and set in motion an API to automate Report Delivery through integration in Workday using XSLT to modify the XML Data thereby reducing man hours by **80%**.
- Mentored **2** interns; helped design solutions; taught best development practices and held configurations review. Facilitated Training Sessions for new recruits in Workday practice at IBM.

PROJECTS

Topic Based Empathetic Chatbot | Python, Flask, TensorFlow

February 2023 - May 2023

- Developed a Chatbot to handle Topical and Chitchat Queries. Built an NN sequential model-based classifier to differentiate between use case. Added a Dialog Manager to record history, filter and format responses and maintain context. Incorporated BERT to get most relevant response.
- Carried out Text Pre-Processing and Prepared Dataset using Python on Reddit-QA-corpus, BYU-PCCL (CC), ED and calculated BERT, BLEU, ROUGE, and BLEURT scores to evaluate accuracy of model.
- Topical: Indexed questions and responses in Apache Solr and generated queries based on users' questions.
- Chitchat: Formulated a creative approach to categorize users based on a psychological Sigmund Freud Evaluation to Incorporate empathy. Self-built an Augmented Dataset for user types and trained GPT2 model to generate responses.
- Implemented backend in Python and used Flask as a web framework. Deployed the App on Digital Ocean Ubuntu droplet.

Trading in Fractionalized Realty | Solidity, JavaScript

August 2022 – December 2022

- Developed a DApp to tokenize fractionalized real estate and built a trade exchange expecting to increase involvement of masses by **200%** in real estate trading.
- Coded a full-stack decentralized application (DApp) implementing backend in Node.JS, frontend in JavaScript, and writing smart contracts in Solidity. Compiled and Rolled Out on Goerli Network using Truffle and Infura. Integrated Metamask for user authorization and transaction signing and OpenZeppelin for NFT minting and transfer functionality.

Mountain Camp Website (Yelp Camp) | NodeJS

January 2020 - May 2020

- Engineered a web application to add, rate and review different campgrounds using Node.js and Express.js for backend, HTML, CSS, JavaScript for UI and MongoDB for database. Created REST APIs to exchange information between backend and frontend.
- Incorporated Passport.js for authentication, limit number of reviews and prevent unverified comments.
- Leveraged Cloudinary to fetch media from cloud, reducing loading time of website and database cost by more than **40%**. Tested the APIs in Postman and deployed it on AWS EC2 Instance. Employed Docker to containerize it and Kubernetes to manage application.