Shyamal Mishra

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https://www.github.com/shyamal11
https://shyamal11.github.io/portfolio/

EDUCATION

Master of Science - Computer Science | Drexel University | GPA: 3.7/4.0   **Aug 2022 – Jun 2024**
Bachelor of Technology - Information Technology | KIIT, Bhubaneswar   **Jul 2015 – Mar 2019**

SKILLS

Languages: Java, Python, C++, SQL, JavaScript, HTML5, CSS
Databases & Frameworks: NoSQL, MySQL, PostgreSQL, MongoDB, React, Node.js, Flask, TensorFlow
Libraries & Tools: Kafka, Git, Docker,Pandas, NLTK, OpenCV, scikit-learn, Pandas, NumPy, selenium,SciPy
Others: Linux, git, GCP, REST API, Jenkins, Postman, PyTorch, Kubernetes, JIRA, AWS, PySpark, SOAP, Gen AI
soft skills: Clear emphatic communicator, efficient time manager, collaborative team player

EXPERIENCE

Research Assistant | SOAR Lab, Drexel University, PA, USA   **Jun 2023 – Dec 2023**
- Developed a Natural Language Processing bot through fine-tuning of Large Language Models (LLMs), enabling effective detection of toxic interactions and achieving an 89% accuracy rate for classification tasks.
- **Paper published as**: "Exploring ChatGPT for Toxicity Detection in GitHub", in 46th International Conference on Software Engineering (ICSE, Apr 2024) https://soar-lab.github.io/papers/exploring_toxicity.pdf

Software Engineer | Deloitte, Hyderabad   **Apr 2019 – Aug 2022**
- Led the design and implementation of a middleware solution to synchronize customer data across five distinct systems, leveraging event-driven architecture and asynchronous processing to handle real-time data updates.
- Developed chunked file transfer mechanism to resolve large file transfer challenges, reducing system timeouts by 25%.
- Implemented Apache Spark to replace legacy cron jobs, enabling parallelized data processing and scaling the data ingestion pipeline to handle 10 times the previous data volume.
- Enhanced CI/CD pipelines by implementing Jenkins best practices, leading to faster and more reliable product releases.
- Played a key role in the Medicaid module implementation for Rhode Island's UHIP project, significantly reducing processing time for Medicaid applications utilized by half a million users.

Web Developer Intern | Tata Technologies,Jamshedpur   **Mar 2017 – May 2017**
- Contributed to creating a cafeteria ordering app, leading to an average decrease of 4 minutes in food delivery time.
- Revamped the menu navigation structure to categorize items more effectively and improve discoverability.

ACADEMIC PROJECTS

Dynamic Media Processing | AWS (EC2, S3, lambda, DynamoDB), Docker, Flask   **Apr 2024**
- Established a multi-tier serverless infrastructure with instant auto-scaling, adeptly managing 1,000+ requests/second.
- Executed video frame extraction and image recognition via a Lambda function triggered by S3 integration.

Full Stack Mental Health Support Platform | React.js, Node.js, MongoDB, OpenAI   **Nov 2023**
- Innovated AI-driven algorithms for initial mental health evaluations and offering virtual yoga guidance.
- Implemented the Peer Support Network, fostering connections among users to provide mutual encouragement.

Wildlife conservation using Image Identification System | OpenCV, PyTorch   **Jul 2023**
- Designed animal species detection and classification models utilizing PyTorch and transfer learning techniques.
- Faster R-CNN outperformed SSD with an overall accuracy of 91% and higher mean average precision scores.

Cryptocurrency Price Forecasting | TensorFlow, Numpy, Pandas, Matplotlib   **Jan 2023**
- Collaborated with a team to develop neural networks for predicting cryptocurrency prices through an ablation study.
- Experimented with varied LSTM layer numbers and 1D-CNN alongside LSTM layers, adjusting hyperparameters.

ACHIEVEMENTS

- **Best Project Award:** For the project presented on UI design | Drexel University   **Mar 2024**
- **Community Outreach Coordinator** at Sashakti Foundation   **Jan 2021 - Present**
- **Promotions:** Recognized through early promotions for completing top-priority initiatives at Deloitte   **May 2022**