

Shyamal Mishra

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EDUCATION

Master of Science - Computer Science | Drexel University, PA, USA | GPA: 3.8/4.0

Aug 2022 – Jun 2024

Bachelor of Technology - Computer Science | KIIT University, BBSR, India

Jul 2015 – Nov 2019

SKILLS

Languages: Java, Python, C++, Go, SQL, JavaScript, HTML5, CSS

Databases & Frameworks: NoSQL, MySQL, PostgreSQL, MongoDB, React, Node.js, Flask, TensorFlow

Libraries & Tools: Kafka, Git, Docker, NLTK, OpenCV, scikit-learn, Pandas, NumPy, selenium, SciPy

Others: AWS, git, GCP, REST API, Jenkins, Postman, PyTorch, Kubernetes, JIRA, PySpark, SOAP, Django

EXPERIENCE

Research Assistant | SOAR Lab, Philadelphia

Jun 2023 – Dec 2023

- Developed a bot utilizing GPT-3.5 and DistilBERT to identify toxic conversations in GitHub discussions and suggest non-toxic alternatives with 89% accuracy, fostering a healthier online community.
- Automated Python scripts for sentiment classification, improving data preprocessing and training efficiency by 20%.
- **Research Published** at 46th International Conference on Software Engineering - ICSE, Apr 2024 [[Paper Link](#)]

Software Developer | Deloitte , Hyderabad

Apr 2019 – Aug 2022

- Led the development of a supply chain optimization engine that ensured real-time data synchronization across 8 systems and seamlessly integrated with existing ERP systems, reducing logistics costs by \$1.5 million annually.
- Built a chunked data transfer mechanism to resolve large file transfer challenges, reducing system timeouts by 25%
- Developed and deployed over 20 features in a large-scale Java-based application for the Rhode Island state healthcare system, enhancing Medicaid application processing times and serving over half a million users.
- Optimized API performance using asynchronous processing and retry techniques, resulting in faster response times.
- Enhanced CI/CD pipelines by implementing Jenkins best practices, leading to faster and more reliable product releases.
- Developed a real-time search feature for a react-based analytics platform by implementing a debounced input and prefix matching algorithm, resulting in instant retrieval of critical data insights.

Application Developer | Tata Technologies, Jamshedpur

Mar 2017 – May 2017

- Improved content search and retrieval in a cafeteria ordering web app by implementing an inverted index algorithm to enable efficient keyword-based searches and faster data retrieval, resulting in enhanced user satisfaction.

PROJECTS

Podcast-as-a-Service | Python, Django, MongoDB, Redis, OpenAI, Azure , Hugging Face [[Link](#)]

Apr 2024

- Built a podcast-as-a-service platform allowing users to produce podcasts in selected domains, with features like automated cover image generation, integrated speech synthesis, and distribution across multiple platforms.

Full Stack Mental Health Support Platform | React.js, Node.js, MongoDB, OpenAI [[Link](#)]

Nov 2023

- Developed an AI-driven web application for mental health assessments, offering real-time live yoga guidance with pose correction, along with a bot providing initial assistance for user medical-related inquiries.

Advanced Video Streaming with QUIC Protocol | Go, HTTP/2, FFmpeg [[Github Link](#)]

Apr 2024

- Engineered real-time, low-latency video streaming over the QUIC protocol, with client-side keyboard controls to dynamically manage playback on the server for a smooth, responsive experience.

Wildlife conservation using Image Identification System | OpenCV, PyTorch

Jul 2023

- Designed and implemented animal species detection and classification models using PyTorch and transfer learning techniques, achieving an overall accuracy of 91% with Faster R-CNN outperforming SSD in average precision scores.

ACHIEVEMENTS

• **Best Project Award:** Full-stack applied AI project with social benefits | 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