

Shyamal Mishra

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<https://www.github.com/shyamal11>

<https://shyamal11.github.io/portfolio/>

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 2014 – Nov 2018

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, NLTK, OpenCV, scikit-learn, Pandas, NumPy, selenium, SciPy

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

EXPERIENCE

Research Assistant | SOAR Lab, Philadelphia

Jun 2023 – Dec 2023

- Developed a bot leveraging 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, enhancing data preprocessing and training efficiency by 20%.
- **Research Published:** in 46th International Conference on Software Engineering - ICSE, Apr 2024 [[Paper Link](#)]

Software Engineer | 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.
- Enhanced API performance with 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 cloud-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 the 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

Media Processing using quick protocol | Go, HTTP/2, FFmpeg [[Github Link](#)]

Apr 2024

- Developed video streaming using the QUIC protocol in Go, enabling low-latency, real-time streaming for multiple clients.
- Implemented client-side video controls with keyboard inputs, allowing clients to pause and play video streams by sending commands to the server, which dynamically adjusts the video stream processing.

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 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.

Cryptocurrency Price Forecasting | TensorFlow, Numpy, Pandas, Matplotlib

Jan 2023

- Innovated neural networks for cryptocurrency price forecasting, with varied LSTM and 1D-CNN architectures.

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