

Shailesh Kr. Thakur

SOFTWARE ENGINEER

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EDUCATION

- **NIT, Bhopal** Jul. 2018 – Jun. 2020
M. Tech. in Computer Science GPA: 8.16/10.0
- **Guru Gobind Singh Indraprastha University, Delhi** Jul. 2013 – May 2016
B. Tech. in Computer Science Agg.: 69.09%
- **Guru Nanak Dev Polytechnic, Delhi** Jul. 2010 – May 2013
Diploma in Computer Science Agg.: 72.02%

EXPERIENCE

- **Techpearl Software** Bengaluru, India
Software Engineer Jun. 2021 – Present
 - **UNISON - The Music App for Bands** Feb. 2023 – Present
 - **Technology Used** : Redis Server, React Js, React Native, React Redux, NodeJs, Express, MySQL, EC2, S3.
 - **Tools Used** : VS Code, Android Studio, Postman, Git.
 - UNISON is a **cloud storage and sharing system** built for bands and their members. It manages different bands with their directors and members and also allows directors to share data such as songs or lyrics among their members based on their roles.
 - Investigated and integrated **Stripe Payment Gateway** and store in database.
 - Implemented **navigation tab**, **drawer navigation** and created screens for Bands.
 - Developed **REST API** to create, update and delete Bands Group for mobile and web.
 - **AIDA - App for Surveillance** Feb. 2023 – Present
 - **Technology Used** : React js, React Native, React Redux, Serverless Framework, NodeJs, AWS Services(S3, Cognito, Dynamodb, API Gateway, Lambda, CloudFront, Trigger, Kinesis Video Stream), Material UI, Redux.
 - **Tools Used** : VS Code, IntelliJ IDEA, AWS SDK, AWS Kinesis Video Stream SDK, Postman, GitHub.
 - AIDA is an all-in-one **surveillance tool** that streamlines user, company, device, and camera management, providing authorized users with secure and reliable live camera streaming capabilities for effective real-time monitoring.
 - Developed **serverless application** utilizing AWS services including Cognito for user authentication, API Gateway for scalable and secure RESTful API development, Lambda for serverless computing, and DynamoDB for NoSQL data storage.
 - Modelled a **single-table design with Amazon DynamoDB** from the access patterns based of given data on client-specific requirements.
 - Built a full-stack web application, leveraging React, Material UI, and Redux to develop a sleek and intuitive user interface, and a RESTful API to support seamless CRUD operations and back-end data management.
 - Successfully delivered the **project independently, on-time and within budget**.
 - **SWAE - App for AI Based Decision Making** Jun. 2021 – Feb. 2023
 - **Technology Used** ReactJs, React Native, Material UI, NodeJs, AWS Services(AWS Amplify, Elastic search, Cognito, Dynamodb, API Gateway, Lambda, Triggers), Material UI, React Context API.
 - **Tools Used** : VS Code, AWS SDK, Postman, Gitlab.
 - SWAE work was highly lauded for **streamlining the decision making process**.
 - Successfully integrated Stripe payment gateway for the first time in SWAE project, resulting in a 25% increase in user transactions and revenue.
 - Spearheaded the development of an end-to-end Slack integration for SWAE, with a focus on client-specific needs and the goal of enhancing platform engagement, resulting in a significant **20% increase** in user activity.

- Successfully managed the migration of DynamoDB tables, Cognito users, and S3 data between AWS accounts, executing the transfer with precision using scripts and attention to detail to ensure no data loss and minimal disruption to end-users, resulting in a significant **15% reduction** in costs
- Developed reports using a script and explained reported results to the client.
- Demonstrated the end-to-end features of SWAE client and successfully delivered the project on time and within budget.

ACADEMIC PROJECTS

• Covid-19 Tracker Web App

Sep, 2020

- **Technology Used** : ReactJs, Material UI, Firebase, Open Disease Data API.
- **Tools Used** : VS Code, Postman.
- Developed a website that retrieves real-time stats from Open Disease Data API and deploys using Firebase.
- Created an interactive UI containing a map and a table that records the live number of cases by country.
- Displayed a graph that shows the last 90 days' COVID worldwide stats.

• Lung Cancer: Detection And Classification

Jan 2020 – May 2020

- **Technology Used** : Python, Anaconda, TensorFlow, Keras, Dicom, Neural Networks.
- **Aim** : Engineered a lightweight 3D CNN model using Indian public health data, leveraging my expertise in machine learning and deep learning techniques to design and optimize a model that significantly enhanced analysis capabilities, enabling accurate and efficient insights into public health trends.
- Comparative analysis of different CNN models, proposed in between 2010-2010 for detection and classification of cancerous tissues based on different parameters such as error rates, input size, number of layers, and the total number of weights and multiply and accumulates (MACs) required.
- Preprocessed CT X-ray images provided by LIDC-IDRI and trained our Modified CNN model to detect nodules having a diameter between 3mm to 5mm from images.
- Classified detected nodules into malignant and benign using EfficientNet.
- Overall accuracy achieved was 93.59%.

SKILLS

- **Concepts**: Data Structure, Object Oriented Programming, Databases, Operating System, Machine Learning
- **Languages**: Javascript, Python, C++, SQL, HTML, CSS, Java
- **Technologies**: AWS, React, React Redux, NodeJs, Ant Design, Material UI, Chart.js, GCP, Git
- **Platforms**: VS Code, Anaconda, Android Studio, IntelliJ IDEA, Windows, Linux, Postman

PUBLICATIONS

- **'Lung cancer identification: a review on detection and classification'** in **Cancer and Metastasis Reviews**, Jun. 2020.
Publication URL: <https://link.springer.com/article/10.1007/s10555-020-09901-x>
- **'Lung Cancer: Detection and Classification of Malignancies'** in **Artificial Intelligence and Sustainable Computing: ICSISCET**, 2020.
Publication URL: https://link.springer.com/chapter/10.1007/978-981-16-1220-6_38

CERTIFICATIONS

- **AWS Lambda & Serverless Architecture Bootcamp - Udemy, 2022**
Credential URL: <https://www.udemy.com/certificate/UC-0eb446f2-5e67-492a-82d1-ccc4c4abc728/>
- **Machine Learning - Coursera, 2020**
Credential URL: <https://bit.ly/3UQ212V>
- **Neural Network and Deep Learning - Coursera, 2020**
Credential URL: <https://bit.ly/3GYDvqo>

- **Deep Learning and Applications - Ministry of Electronics and Information Technology, Government of India 2020**
Credential URL: *<http://bit.ly/41dvrdl>*
- **Natural Language Processing - Ministry of Electronics and Information Technology, Government of India 2020**
Credential URL: *<http://bit.ly/3KkkQX1>*