UTTAM SINGH

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EDUCATION

B.Tech in CSE, National Institute of Technology, Rourkela   Grade: 9.13/10   2016 - 2020

EXPERIENCE

Software Engineer(SDE-2) GE Healthcare   Oct 2022 - Present

1. Distributed Data Platform

   - As a SDE-2 in the Distributed Data Platform Team, I have developed hybrid cloud, multi-tenant, real-time patient vitals streaming applications, APIs for database calls and an alarm system to deliver critical notifications to hand-held devices building a data strategy to enable AI solutions on patient's data.

   - As a founding member of the Distributed Data Platform team, I have designed the applications and infrastructure components of Data Mesh, incorporating data security and data governance

   - As a member of Cyberlab at GE Healthcare, I have reverse engineering 9 SaaS offerings finding critical and high vulnerabilities

2. Miscellaneous Projects

   - Built a production-grade DICOM Image viewer, powered with U-NET algorithm which would identify brain tumours in MR Scans

   - Revamped a patented breast cancer detection algorithm to make it more faster and portable in current devices

Undergrad Research Intern University of Western Ontario, London, Canada   April 2019 - July 2019

   - Delivered an IOT-based solution and developed a dashboard in NodeRed for Smart City applications

ACADEMIC PROJECTS

1. A data augmentation and channel selection technique for grading human emotions on DEAP dataset

   - Created a framework based on statistical modelling, search space optimization and LSTM to predict human emotions from EEG signals

2. Forecasting spread of COVID-19 using google trends: A hybrid GWO-deep learning approach

   - An LSTM and Grey wolf based prediction algorithm to effectively predict the number of new cases, total cases and total deaths due to CoVID-19 using Google Trends Search results

3. Design of A Recurrent Neural Network Model for Machine Reading Comprehension

   - Developed a Word Embedding, Attention, Pointer Network and GRU-based NLP model to contextually answer questions of paragraph on SQUAD Dataset

SKILLS AND STRENGTHS

Programming Languages	Java, C, C++, Python, Matlab, Quarkus, SpringBoot, SQL
Cloud Native Technologies	Azure IoTHub, Kubernetes, Docker, Helm, KEDA, AWS, Azure, GCP
Other Technologies	PostgreSQL, Data Mesh, Flink, Kafka, Redpanda, Tilt, Git, GitOps

KEY ACCOMPLISHMENTS

1. 1st Runner-up in GEHC Annual Tech Awards 2023 under the category "Delivering the future health-tech with a business growth mindset"

2. 10 Impact Awards and Winner of GE's Global Innovate Hackathon

3. Academic Excellence Award in Engineering

4. 3 research publications in internationally reputed journals