SANDEEP KUMAR SWAIN

B.Tech 4th Year | Student | Developer

Results-driven Computer Science and Engineering student seeking opportunities to leverage self-taught full-stack development skills and a passion for creating things that live on the internet, be it websites, applications, or anything in between.

CONTACT

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SKILLS

Programming

- C for low-level programming
- C++ for Competitive Coding
- Java for AppDev
- HTML-CSS-JS for Web Dev

Web Development Tools

- JS Frameworks like Next.js(React) and Vue.js
- CSS Frameworks like Tailwind CSS and Bootstrap
- Backend Technologies like Node and Express
- Databases like Firestore, MongoDB, HyGraph CMS, SQLite
- Netlify, Vercel, Digital Ocean for hosting

Data Science and ML

- Machine Learning platforms like Tensorflow, Keras, Sci-kit Library
- Data Analysing libraries like Numpy, Pandas, Matplotlib Library

Development Tools

- Version Control Tools like Git and Github
- Code Editors like VS Code, NeoVim
- Cloud Providers like GCP
- Linux OS like Ubuntu, Kali

Other Skills

- Ethical Hacking Tools like Metasploit, Burpsuit, NMap, WireShark
- Can speak English, Hindi, Odia
- App Dev Lead in KIIT KONNEXIONS

FOOTNOTE

Actively seeking new opportunities to expand knowledge base and gain valuable work experience. Committed to delivering full commitment and dedication to assigned tasks within your organization.

PROJECT WORKS

GAN Optimization using Duality Gap

- Implemented the concept of Duality Gap on various other optimisation algorithms of GANs to enhance performance.
- Achieved a faster rate of convergence for GAN components by trying to minimize a common objective function.
- Successfully eliminated oscillation and mitigated other anomalies during the training process.

GANs | Optimisations | Duality Gap

Nearest Neighbor Transformation of Quantum Circuits in 2D Architecture

- Developed an algorithm to minimize the insertion of swap gates in quantum computing.
- Strategically placed the qubits on a grid to reduce the overall number of required swaps.
- Employed a Genetic Algorithm to identify the optimal path to minimise the total swaps.

Quantum Circuit | Swap Gates | Nearest Neighbor | Genetic Algorithm

Various Deep Neural Networks on Computer Vision

- Successfully implemented an image captioning model leveraging the power of a CNN and a Transformer.
- Applied Convolution LSTM to develop a Next-Frame Prediction Model.
- Effectively implemented the concept of Style Transfer and auto-encoders.
- Contributed to projects focused on Super-Resolution and Low-Light Image Enhancement.

Quantum Circuit | Swap Gates | Nearest Neighbor | Genetic Algorithm

Various Web Projects

- An E-Commerce Website built using Next.js, Tailwind CSS, Mongo DB with integrated secure payment using Stripe API
- A Social Media Website built using Next.js, Tailwind CSS, Mongo DB with a custom server using Express environment to implement Socket.io.
- An Algorithm Visualiser built using Next.js and Tailwind CSS with state management using Redux.
- An Online Classroom Management website for Talent Sprint Classes, Berhampur
- Have made freelance websites for KIIT KONNEXIONS and InU Cafe & restro.

Quantum Circuit | Swap Gates | Nearest Neighbor | Genetic Algorithm

EDUCATION

2018 De Paul School, Berhampur	Class 10th Percentage - 92.4%
2020 FIITJEE Junior College, Vijayawada	Class 12th Percentage - 95.5%
2020-Present Kaling Institute of Industrial Technology	CGPA as in 6th Semester - 9.2