

Paramveer Singh Matharu

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Education

VIT Bhopal University, Bhopal 2022 – present
BTech in Computer Science
◦ CGPA: 9.18/10.0
DAV Public School, Bina 2022
XII (Senior-secondary) : 90.8%
Nirmal Jyoti sr sec, Bina 2020
X (Secondary) : 86.8%

Skills Summary

Languages and Libraries: Java, Python, JavaScript, HTML5, numpy, pandas, scikit-learn, Matplotlib, CSS3, EJS, JQuery
Technologies: Reactjs, MySQL, Excel, TailWind, Express, Figma

Research Projects

EEG Signal Detection using Spiking Neural Network

- Developed algorithms to detect human intentions by analyzing EEG signals using Spiking Neural Networks (SNNs), leveraging neuromorphic computing for efficient brain-signal processing.
- Integrated SNNs with feature extraction techniques such as wavelet transforms and power spectral density analysis, improving the accuracy of intention detection for brain-computer interface applications.

Heart Disease Prediction using Boruta Feature Selection Algorithm

- Developed a predictive model for heart disease by applying the Boruta Feature Selection Algorithm to identify the most relevant clinical features, enhancing model interpretability and performance.
- Integrated selected features into machine learning models such as Random Forest and XGBoost, achieving higher precision in early heart disease detection for healthcare decision support systems.

Projects

Bankist (Banking Simulator)

- Developed an interactive banking simulator using HTML, CSS, and JavaScript, enabling users to perform transactions, manage accounts, and track balances in a user-friendly interface.
- Implemented core banking functionalities such as deposits, withdrawals, loan approvals, and account summaries with real-time updates for an immersive financial experience.

Certifications

- NPTEL Privacy and Security in Online Social Media.
- Udemy - The Complete Full-Stack Web Development Bootcamp
- Udemy - The Ultimate React Course : React, Next.js, Redux

Languages

English, Hindi, Punjabi