Shashwat Vikram Singh

Indore | shashwatvikramsingh8@gmail.com | 9981171354 | Linkdln | Portfolio

Technical Skills

Programming Languages: JavaScript (ES6+), Python (NumPy, Pandas), Java (Spring), HTML5, CSS3 (Sass/LESS)
Frontend Development: React.js (Hooks, Context API), Redux, Bootstrap 5, Responsive Web Design, Material UI
Backend Development: Node.js (Express), RESTful API Design, MongoDB, PostgreSQL
Development Tools: Git/GitHub, VS Code, Figma (UI Prototyping), Webpack, Postman
SEO & Analytics: Google Analytics (GA4), SEMrush, Ahrefs, Search Console
Web Technologies: Cross-Browser Compatibility, Web Performance Optimization, Accessibility (WCAG)
Methodologies: Agile Development, CI/CD, Test-Driven Development

Education

VIT Bhopal University | B.Tech Computer Science 2022 – 2026
Chameli Devi Public School | CBSE Class XII 2021 – 2022
Chameli Devi Public School | CBSE Class X 2019 – 2020

Projects

Genexis | Epigenetic Aging Reversal Predictor GitHub

- Developed ML model using **Python** (Scikit-learn, Pandas) trained on **1,000+ biomarker datasets**, achieving **85% accuracy** versus clinical benchmarks through **5-fold cross-validation** and feature selection
- Designed **React.js** dashboard with Chart.js visualization and interactive methylation heatmaps, reducing user interpretation time by **40%** through filtering
- Implemented **Flask API** backend with Redis caching to serve personalized plans for **200+ simulated users** (average response time **<300ms**)
- Optimized model performance by **30%** through feature engineering of epigenetic clock biomarkers (DNA methylation levels, telomere length estimates)
- Automated data preprocessing pipeline handling **10GB+** of .idat files using parallel processing with Dask

BlazeFix | Forest Fire Prediction System GitHub

- Built **random forest classifier** (Python) achieving **89% prediction accuracy** by processing **10GB/day** of NOAA/MODIS satellite data using **pandas/Dask** with memory optimization
- Deployed **Node.js** prediction model on AWS EC2 (g4dn.xlarge) with load balancing, serving **50+ concurrent users** at **<1s response time**
- Created dynamic risk visualization using **Leaflet.js** with **GeoJSON** integration and custom heatmaps, mapping fire risks at **1km resolution**
- Implemented **automated data pipeline** with **cron jobs** and AWS S3 integration for daily satellite data updates
- Added weather data integration (wind speed/direction, humidity) from OpenWeatherMap API, improving prediction window to **48 hours**

Certifications

* SEO Fundamentals Course (Semrush)

* Google - The Bits and Bytes of Computer Networking (Coursera)

* Walmart Global Tech (A.S.E.)