

Suvayu Biswas

Full-Stack Developer | AI/ML | Cloud Certified

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PROFESSIONAL SUMMARY

Oracle and Red Hat certified Computer Science student (**CGPA: 8.98**) with a strong foundation in scalable full-stack development and applied AI/ML. Proven track record in architecting production-ready applications (Ghuumo) and researching medical imaging models (**97.6% accuracy**). Actively seeking **Software Engineering** internship opportunities to leverage expertise in **Java, Node.js, Python**, and Cloud Infrastructure

EDUCATION

Bachelor of Technology (B.Tech) in Computer Science and Engineering,
Kalinga Institute of Industrial Technology (KIIT)
CGPA: 8.98 / 10

2023 – 2027
Odisha, India

PROJECTS & RESEARCH

Ghuumo - Location-Based Travel & Listing Platform

GitHub : <https://github.com/SuvayuBiswas/ghuumo> 

- **Full-Stack Architecture:** Developed a scalable web application using **Node.js** and **Express.js**, utilizing **EJS** for server-side templating to ensure fast initial page loads and SEO friendliness.
- **Geospatial Integration:** Integrated **Leaflet.js** and **OpenStreetMap** to render interactive maps, enabling users to pinpoint travel locations and view dynamic clustering of destinations.
- **Database & Schema:** Engineered a flexible NoSQL data model using **MongoDB** and **Mongoose**, handling complex relationships between users, campgrounds, and reviews.
- **Security & Auth:** Implemented robust authentication and session management using **Passport.js**, secured sensitive API keys with **Dotenv**, and sanitized inputs to prevent NoSQL injection.
- **UI/UX Design:** Built a fully responsive, mobile-first interface using **Bootstrap 5**, ensuring consistent layout and usability across all device sizes.
- **Tech Stack:** Node.js, Express, MongoDB, Passport.js, Leaflet.js, Bootstrap.

09/2025 – 12/2025

Cascading Self-Attention Funnel (CSAF) — Brain Tumor Classification Model,

Research Project | Paper drafted (unpublished)

06/2025 – 11/2025

- **Model Innovation:** Architected a novel **lightweight deep learning model** utilizing a cascading self-attention mechanism to prioritize relevant tumor features while suppressing background noise.
- **Performance Optimization:** Achieved a **97.6% accuracy** and **99.67% recall** on the BRISC2025 dataset, outperforming standard heavy-weight CNN baselines (like ResNet) while using **<67K parameters**.
- **Resource Efficiency:** Optimized the model for deployment in resource-constrained environments (edge devices) by implementing aggressive **down-sampling** and attention funnels.
- **Research Output:** Conducted rigorous ablation studies and drafted a research paper (currently in pre-submission) validating the efficacy of low-parameter models in medical imaging.
- **Tech Stack:** Python, PyTorch, NumPy, CNNs.

Personal Developer Portfolio

GitHub : <https://github.com/SuvayuBiswas/suvayu.me> 

12/2025 – 12/2025

- Designed and deployed a responsive portfolio to showcase projects, research, and skills.

TECHNICAL SKILLS

Programming Languages

JavaScript (ES6+), Python, Java, SQL, C

Backend & Database

Node.js, Express.js, MongoDB, Mongoose, RESTful APIs

Frontend

HTML5, CSS3, Bootstrap, EJS, Responsive Design, DOM Manipulation

Core CS Concepts

OOP, API Integration, Responsive Design, Data Validation

AI/ML

PyTorch, TensorFlow/Keras, CNNs, Attention Mechanisms, Data Preprocessing

Cloud & DevOps

Oracle Cloud (OCI), AWS, Red Hat Enterprise Linux (RHEL), Git, GitHub

CERTIFICATIONS

- Oracle Cloud Infrastructure 2025 - Certified Architect Associate 
- Red Hat System Administration I (RH124 - RHA) - Ver. 9.3 
- Oracle Cloud Infrastructure 2025 Certified Generative AI Professional 
- JavaScript Algorithms and Data Structures - freeCodeCamp 
- AWS Academy Graduate - Cloud Foundations, Amazon Web Services 
- Responsive Web Design - freeCodeCamp 

LANGUAGES

English

Professional Proficiency

Hindi, Bengali

Native