KUMAR HARSH

Computer Science Engineering

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[LinkedIn](#) | [Portfolio](#)

OBJECTIVE

Computer Science Engineering student at **KIIT University** with strong expertise in **Python, C++, JavaScript**, and **AWS Cloud Computing**. Experienced in building **Machine Learning** models, **Android applications**, and cloud-based solutions. Developed AI-powered face verification systems and managed gaming servers serving 100+ concurrent users.

KEY SKILLS

Python, Java, C++, JavaScript, Kotlin, SQL, HTML, CSS, Machine Learning, Deep Learning, TensorFlow, Computer Vision, AWS, Cloud Computing, EC2, S3, Lambda, Android Development, React.js, Flask, Node.js, REST API, Git, GitHub, Docker, MySQL, Firebase, Data Structures, Algorithms, Object-Oriented Programming, Agile, Problem Solving, Team Collaboration

EDUCATION

Bachelor of Technology (B.Tech) in Computer Science Engineering   2022 – 2026
KIIT University, Bhubaneswar, Odisha, India

Senior Secondary Education (12th CBSE)   2020 – 2021
PPM School, Jehanabad, Bihar

Secondary Education (10th CBSE)   2019 – 2020
PPM School, Jehanabad, Bihar

WORK EXPERIENCE

Cloud Computing Intern   2024
Amazon Web Services (AWS) Cloud Program

- Designed and deployed 5+ cloud-based solutions using AWS EC2, S3, Lambda, IAM, and VPC services
- Completed AWS Academy Cloud Foundations and Cloud Architecting professional certification modules
- Implemented serverless architecture using AWS Lambda reducing infrastructure costs by 40%
- Configured IAM policies and VPC security groups following AWS Well-Architected Framework best practices
- Collaborated with team members to deliver cloud migration projects on schedule

Android Developer Intern   2024
Google for Developers Program

- Developed 3+ Android mobile applications using Kotlin, Java, and Android Studio
- Implemented Material Design 3 UI/UX principles improving user engagement by 25%
- Integrated RESTful APIs and Firebase backend services for real-time data synchronization
- Optimized SQLite database queries reducing app load time by 30%
- Utilized Git version control for collaborative development and code reviews

PROJECTS

AQUA Face Lite - AI-Powered Face Verification System
Python, Deep Learning, TensorFlow, Streamlit, OpenCV, InsightFace

- Engineered real-time face verification system achieving 98% accuracy using InsightFace ArcFace model
- Developed responsive Streamlit web interface processing 50+ image comparisons per minute
- Implemented deep learning pipeline with face alignment and cosine similarity matching
- Optimized model inference achieving low-latency performance on CPU without GPU requirements
- Deployed application on cloud server handling concurrent user requests efficiently

Multiplayer Gaming Server - Custom GTA V Roleplay
Lua, JavaScript, Node.js, MySQL, AWS, Docker

- Architected and managed custom gaming server with 100+ concurrent active players daily
- Developed 20+ custom scripts in Lua and JavaScript for gameplay features and economy systems
- Managed AWS VPS infrastructure and MySQL database supporting 10,000+ registered users
- Integrated Discord API for community management and automated notifications
- Implemented CI/CD pipeline for automated deployments reducing downtime by 60%

Alzheimer Disease Prediction - Machine Learning Healthcare Application
Python, TensorFlow, CNN, OpenCV, Flask, Scikit-learn

- Developed CNN-based machine learning model achieving 92% accuracy in Alzheimer disease prediction
- Processed 5000+ medical images using OpenCV for feature extraction and data augmentation
- Built Flask REST API web application for model deployment and real-time predictions
- Implemented data preprocessing pipeline handling missing values and image normalization
- Documented project following software engineering best practices and code standards

Game Engine Development - Advanced Software Engineering
C++, Data Structures, Algorithms, DBMS, OOP

- Designed modular game engine architecture using object-oriented programming principles
- Implemented efficient data structures and algorithms optimizing performance by 35%
- Developed using test-driven development (TDD) methodology with 90% code coverage
- Integrated database management system for persistent game state storage
- Applied SOLID principles and design patterns for maintainable codebase

TECHNICAL SKILLS

Programming Languages: Python, Java, C++, JavaScript, Kotlin, Lua, SQL, HTML, CSS, TypeScript

Machine Learning and AI: TensorFlow, Scikit-learn, OpenCV, Deep Learning, CNN, Computer Vision, NLP, Neural Networks, Data Science

Cloud and DevOps: Amazon Web Services (AWS), EC2, S3, Lambda, IAM, VPC, Docker, Git, GitHub, CI/CD, Linux, VPS Hosting

Web Development: React.js, Node.js, Flask, REST API, Bootstrap, HTML5, CSS3, JavaScript ES6

Mobile Development: Android Studio, Kotlin, Java, Firebase, Material Design, SQLite

Databases: MySQL, PostgreSQL, SQLite, Firebase Realtime Database, MongoDB

Tools and Platforms: VS Code, Jupyter Notebook, Android Studio, Postman, XAMPP, Jira, Slack

Soft Skills: Problem Solving, Analytical Thinking, Team Collaboration, Communication, Time Management, Agile Methodology, Leadership

CERTIFICATIONS

- AWS Academy Graduate - Cloud Foundations - **Amazon Web Services**
- AWS Academy Graduate - Cloud Architecting - **Amazon Web Services**
- IBM Cloud Essentials V3 (CC0103EN) - **IBM**
- Cybersecurity Analyst Job Simulation - **Tata Consultancy Services**
- Software Engineering Job Simulation - Wells Fargo
- Introduction to Cyber Security - **Infosys**
- Cyber Security Awareness Program - **NIELIT**
- Health System Development Policy and Research - Imperial College London
- Health System Development Introduction - Imperial College London
- Preparing to Manage Human Resources - **University of Minnesota**
- Managing Employee Performance - **University of Minnesota**