

# CHIRAG NAHATA

## Full Stack Developer | Software Engineer | AI Specialist

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### PROFESSIONAL SUMMARY

Versatile technology leader and innovator with a unique blend of entrepreneurial drive, technical expertise, and academic rigor. Currently pursuing dual degrees—B.Tech in Computer Science (AIML) from JIS College of Engineering and B.S. in Data Science from IIT Madras—I thrive at the intersection of artificial intelligence, software engineering, and business strategy. As Co-Founder, CEO, and CTO of Digidenone, I architect and scale AI-powered products from concept to deployment, leading cross-functional teams to deliver enterprise-grade solutions that solve complex real-world challenges. My technical foundation spans the full software development lifecycle, with deep expertise in Python, Java, JavaScript, and modern frameworks like React.js, Node.js, TensorFlow, and PyTorch. I approach problem-solving with a product-first mindset, balancing innovation with pragmatic engineering to build scalable, secure, and user-centric applications. Beyond coding, I'm passionate about cybersecurity, having developed security analysis tools and digital forensics platforms that protect critical systems and data. As Founder of Team codeARC and community builder, I've organized large-scale technical events including InnovoCon (500+ participants), served as President of Tech Defenders, and mentored emerging developers through hackathons and workshops. My research contributions—6 granted patents and 3 published papers—reflect my commitment to advancing the field through both practical implementation and theoretical exploration. Whether leading teams, architecting systems, or contributing to open-source projects, I'm driven by a mission to harness technology's transformative power to create meaningful impact and empower others in their tech journeys.

### TECHNICAL SKILLS

#### Programming Languages:

Python, Java, JavaScript, C++, PHP, SQL, HTML5, CSS3

#### Frontend Technologies:

React.js, jQuery, Bootstrap, Material-UI, Responsive Design, Figma, UI/UX Design

#### Backend Technologies:

Node.js (basics), Express.js, Flask, RESTful APIs, Server Administration

#### Databases:

MySQL, MongoDB, Firebase, Database Management Systems

#### AI & Machine Learning:

TensorFlow, Keras, PyTorch, scikit-learn, OpenCV, Natural Language Processing, Computer Vision, Deep Learning, CNN, LSTM, Neural Networks

#### Data Science:

Pandas, NumPy, Matplotlib, Data Analysis, Statistical Analysis, Jupyter Notebook, Google Colab

#### Cloud & Tools:

Google Cloud Platform, AWS (basics), Git, GitHub, VS Code, Postman

#### Other Skills:

Data Structures & Algorithms, Problem Solving, Competitive Programming, Digital Marketing, Social Media Marketing, Technical Writing

## PROFESSIONAL EXPERIENCE

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### Frontend Development Intern

Present

#### AIRL Confitech by Morning Bay

- Developing responsive frontend interfaces using React.js and modern JavaScript frameworks
- Building reusable UI components with focus on performance optimization and user experience
- Implementing pixel-perfect designs from Figma mockups ensuring cross-browser compatibility
- Collaborating with backend developers to integrate RESTful APIs and ensure seamless data flow
- Optimizing web applications for maximum speed and scalability
- Participating in code reviews and following best practices for frontend development

### Full Stack Development Intern & Campus Ambassador

May 2024 - Present

#### CyberDojo: The School of Cyberdefense

- Developing full-stack web applications using modern technologies including React.js, Node.js, and MongoDB
- Building responsive and user-friendly interfaces ensuring cross-browser compatibility and mobile responsiveness
- Implementing cybersecurity best practices and secure coding standards in all development projects
- Mentoring and training peers in web development, cybersecurity concepts, and competitive programming
- Organizing technical workshops, coding sessions, and hackathons as Campus Ambassador
- Collaborating with cross-functional teams to deliver high-quality software solutions on tight deadlines
- Promoting cybersecurity awareness and CyberDojo programs across campus, reaching 500+ students

### Software Developer

November 2024 - Present

#### JIS College of Engineering

- Developing and maintaining college management systems and student portals using modern web technologies
- Implementing database solutions for efficient data management and retrieval
- Collaborating with faculty and administration to identify and solve technical challenges
- Building automation tools to streamline administrative processes, reducing manual work by 40%
- Ensuring code quality through comprehensive testing and documentation

### Social Media Marketing Intern

August 2024 - Present

#### JIS College of Engineering

- Managing social media presence across multiple platforms, increasing engagement by 60%
- Creating engaging content including graphics, videos, and posts for college events and initiatives
- Analyzing social media metrics and preparing performance reports for strategic decision-making
- Coordinating with event organizers to promote technical fests, hackathons, and workshops
- Growing follower base by 45% through targeted campaigns and consistent content strategy

### Google AI-ML Virtual Internship

July 2024 - September 2024

#### EduSkills Foundation

- Completed comprehensive training in artificial intelligence and machine learning concepts
- Developed machine learning models using TensorFlow, Keras, and scikit-learn for real-world applications
- Implemented computer vision and natural language processing projects
- Worked on supervised and unsupervised learning algorithms for data classification and clustering
- Gained hands-on experience with Google Cloud Platform and AI/ML tools

### Frontend Developer Intern

July 2024 - August 2024

#### CodeAlpha

- Built responsive web interfaces using HTML5, CSS3, JavaScript, and modern frontend frameworks
- Implemented pixel-perfect designs from Figma mockups ensuring cross-browser compatibility
- Optimized website performance achieving 40% faster load times through code optimization
- Collaborated with backend developers to integrate APIs and ensure seamless data flow
- Delivered 8+ projects within tight deadlines maintaining high code quality standards

### Internshala Student Partner

June 2024 - July 2024

#### Internshala

- Promoted Internshala training programs and internship opportunities across campus
- Organized information sessions and webinars attracting 200+ students
- Assisted students in finding relevant internships and career opportunities
- Achieved top performer status by successfully promoting training registrations

**Machine Learning Internship***February 2024 - March 2024***Centre For Advanced Computer Learning and Development (CACLD)**

- Learned fundamentals of machine learning including regression, classification, and clustering algorithms
- Implemented ML models using Python libraries including NumPy, Pandas, and scikit-learn
- Worked on real-world datasets for predictive modeling and data analysis
- Completed hands-on projects on supervised and unsupervised learning techniques

**Digital Marketing Course Trainer***February 2024 - March 2024***Gandhi Institute For Technology (GIFT), Bhubaneswar**

- Trained 50+ students in digital marketing fundamentals including SEO, SEM, and social media marketing
- Conducted interactive sessions on content marketing, email marketing, and analytics
- Designed course curriculum and created practical assignments for hands-on learning
- Mentored students on building personal brands and online presence

## KEY PROJECTS

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### SynapseAudit - Professional-Grade Security Code Analysis Platform

**Duration:** Present | **Role:** CEO/CTO at Digidenone | **Live:** synapseaudit.digidenone.tech | **Technologies:** Python, React.js, Node.js, Static Analysis, Pattern Recognition, VS Code Extension API, AI Integration (OpenAI, Gemini, Anthropic, Ollama)

- Leading development of enterprise-grade security analysis platform detecting 53+ vulnerability types across 20+ programming languages
- Architected Synapse Cortex Engine - custom in-house threat detection engine with 99.9% accuracy rate and sub-1 second scan time
- Built VS Code Extension (Beta) with 50+ security checks covering OWASP Top 10, CWE, CVE, SANS Top 25, and compliance standards (GDPR, HIPAA, PCI-DSS, ISO 27001, SOC 2)
- Implemented real-time code analysis with contextual vulnerability detection for SQL injection, XSS, CSRF, hardcoded secrets, weak cryptography, command injection, and 47+ other security flaws
- Integrated optional AI Security Assistant with multi-provider support for enhanced vulnerability explanations and one-click code fixes
- Developed comprehensive security scoring system (0-100), vulnerability trend analysis, and automated compliance reporting
- Created team collaboration features with role-based access control (Admin, Developer, Auditor), shared dashboards, and activity tracking
- Built Git integration with GitHub, GitLab, Bitbucket for auto-scanning repositories, PR/MR analysis, and timeline tracking
- Featured on Product Hunt and VS Code Marketplace, gaining recognition from developer community
- Managing team of 7 developers and leading product strategy, development, and go-to-market execution

### GeoJlix - Geolocation Based Attendance Tracking System

**Duration:** Sep 2024 - Present | **Associated with:** JIS College of Engineering | **GitHub:** GitHub Project Link

- Developed real-time geolocation-based attendance tracking system with GPS verification and geofencing capabilities
- Implemented location-based authentication ensuring accurate attendance marking within designated areas
- Built responsive web application handling 2,000+ users with real-time attendance monitoring
- Integrated Google Maps API for location visualization and geofence boundary management
- Created comprehensive admin dashboard for attendance reports, analytics, and user management
- Reduced attendance fraud by 95% through GPS verification and photo validation features

### EduSphere - Learning Management System

**Duration:** Jun 2024 - Present | **Associated with:** Digidenone | **Technologies:** Laravel, PHP, HTML, Cascading Style Sheets (CSS), JavaScript

- Built comprehensive learning management system with course management, student enrollment, and progress tracking
- Developed user-friendly interface using Laravel framework for seamless educational experience
- Implemented secure authentication system with role-based access for students, teachers, and administrators
- Created interactive features including assignments, quizzes, discussion forums, and grade management
- Integrated video streaming capabilities for online lectures and educational content delivery
- Serving 1,000+ students across multiple courses with 99% uptime

### JISCE CSE(AIML) & CST Website - Department Website

**Duration:** Jun 2024 - Present | **Associated with:** JIS College of Engineering | **Link:** Department Website

- Designed and developed official website for Computer Science Engineering (AIML) & CST department
- Created responsive and modern UI showcasing department information, faculty, events, and student achievements
- Implemented content management system for easy updates and maintenance by department staff
- Built news and events section with dynamic content loading and categorization
- Integrated gallery, faculty profiles, research publications, and student projects showcase
- Optimized for SEO and accessibility ensuring 100% mobile responsiveness

### Socials - The Ultimate Social Media Platform

**Duration:** May 2024 - Present | **Technologies:** Laravel

- Developed full-featured social media platform with user profiles, posts, comments, and real-time interactions
- Implemented friend/follower system, newsfeed algorithm, and content recommendation engine
- Built notification system for real-time updates on likes, comments, and friend requests
- Created media upload functionality supporting images, videos, and file sharing
- Integrated privacy settings and content moderation features for safe user experience
- Designed scalable architecture supporting 500+ concurrent users with optimized database queries

### Anti Manipulation Brigade - Ethical AI Detector

**Duration:** Dec 2023 - Present | **Associated with:** JIS College of Engineering | **Technologies:** Server Administration, HTML5, JavaScript, Cascading Style Sheets (CSS), Leadership, Python | **GitHub:** teamcodeARC/Anti-Manipulation-Brigade

- Developed AI-powered system detecting dark patterns and manipulative design elements in e-commerce websites
- Implemented machine learning algorithms analyzing 10,000+ web elements for unethical design practices
- Created browser extension alerting users about manipulative tactics like false urgency and hidden costs
- Built comprehensive database of dark pattern classifications and ethical design guidelines
- Led team of 5 developers in building web scraping and NLP-based detection system
- Promoted ethical digital design practices achieving 88% accuracy in pattern detection

## **NotewAllah - Note-Taking and Organization Platform**

**Duration:** Dec 2023 - Present | **Associated with:** JIS College of Engineering | **Technologies:** Server Administration, HTML5, Email Hosting, Flask, Web Hosting, Design, Databases, Adobe Photoshop, Cascading Style Sheets (CSS), Problem Solving, MySQL, HTML, Managed Hosting, Python, PHP, Full-Stack Development

- Built comprehensive note-taking application with rich text editor, tagging, and search functionality
- Implemented cloud synchronization ensuring notes accessible across multiple devices
- Created organization features including folders, categories, favorites, and collaborative sharing
- Integrated email hosting capabilities for note sharing and collaboration with team members
- Developed markdown support, code syntax highlighting, and image embedding features
- Serving 300+ active users with 50,000+ notes stored securely in MySQL database

## **RecyCraft - Recycling Ecosystem Platform**

**Duration:** Sep 2023 - Present | **Associated with:** JIS College of Engineering | **Technologies:** Project Management, Server Administration, HTML5, Email Hosting, Team Motivation, Flask, Artificial Intelligence (AI), CSS, Design, Leadership, JavaScript, Web Hosting, Design Databases, Team Management, Team Coordination, Adobe Photoshop, Cascading Style Sheets (CSS), Leadership, Cloud Computing, Problem Solving, MySQL, HTML, Teamwork, Managed Hosting, Python, PHP, Team Leadership, Team Full-Stack Development

- Developed IoT-integrated platform optimizing waste collection routes and promoting recycling through gamification
- Built AI-powered waste classification system identifying recyclable materials with 90% accuracy
- Implemented reward system encouraging users to recycle, resulting in 40% increase in recycling rates
- Created real-time tracking dashboard for waste collection vehicles using GPS integration
- Led cross-functional team of 8 developers and designers in building scalable solution
- Reduced waste collection time by 30% through optimized route planning algorithms

## **J.A.R.V.I.S - The Personal Assistant AI**

**Duration:** May 2022 - Present | **Technologies:** Python | **GitHub:** chiragnahata/jarvis-The-Personal-Assistant

- Developed AI-powered personal assistant with voice recognition and natural language processing capabilities
- Implemented features including web search, weather updates, news reading, email management, and task automation
- Integrated speech-to-text and text-to-speech for hands-free interaction
- Built plugin system allowing custom command extensions and third-party integrations
- Created conversational AI understanding context and maintaining conversation history
- Open-sourced project with 100+ stars on GitHub and active community contributions

## **The Secret Chat App - Secure Messaging Application**

**Duration:** Jan 2021 - Present | **GitHub:** chiragnahata/The-Secret-Chat-App

- Built end-to-end encrypted messaging application ensuring secure and private communication
- Implemented real-time messaging using WebSocket for instant message delivery
- Created self-destructing messages feature with customizable expiration timers
- Developed user authentication system with two-factor authentication for enhanced security
- Integrated file sharing with encryption ensuring secure document exchange

## **The Study Desk App - Student Productivity Tool**

**Duration:** Jun 2021 - Present | **GitHub:** chiragnahata/The-Study-Desk-App

- Developed comprehensive study management app with task tracking, pomodoro timer, and progress analytics
- Built study planner with calendar integration and deadline reminders
- Created focus mode with distraction blocking and productivity statistics
- Implemented note-taking functionality with subject-wise organization

## **Library Management System**

**Duration:** Feb 2021 - Jul 2021 | **Technologies:** Server Administration

- Developed complete library management system handling 5,000+ books and 500+ members
- Implemented book cataloging, search functionality, and automated due date reminders
- Created member management with borrowing history and fine calculation system
- Built reporting module for library statistics and inventory management

## **Arduino Bluetooth Car**

**Duration:** Jun 2021 - Jun 2021 | **Associated with:** Delhi World Public School, Kalyani | **Technologies:** C++, Arduino, Arduino IDE | **GitHub:** chiragnahata/Arduino-Bluetooth-Car

- Built Bluetooth-controlled car using Arduino microcontroller and motor drivers
- Programmed movement controls in C++ for forward, backward, left, right, and speed adjustment
- Developed Android mobile app for wireless control via Bluetooth connectivity

## **Arduino Multimeter**

**Duration:** Jun 2021 - Jun 2021 | **Technologies:** C++, Arduino, Arduino IDE | **GitHub:** chiragnahata/Arduino-Multimeter

- Created digital multimeter using Arduino for voltage, current, and resistance measurement
- Implemented LCD display for real-time measurement readings
- Calibrated sensors for accurate electrical measurements across multiple ranges

EDUCATION

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<b>Bachelor of Technology - Computer Science Engineering (AI &amp; ML)</b> <b>JIS College of Engineering, Kalyani, West Bengal</b> Specialization: Artificial Intelligence and Machine Learning   Relevant Coursework: Data Structures & Algorithms, Database Management Systems, Operating Systems, Computer Networks, Software Engineering, Artificial Intelligence, Machine Learning, Deep Learning, Natural Language Processing, Computer Vision	<i>September 2023 - 2027</i>
<b>Bachelor of Science - Data Science and Applications</b> <b>Indian Institute of Technology (IIT) Madras</b> Online Degree Program   Focus: Statistics, Programming, Data Analysis, Machine Learning	<i>January 2024 - Present</i>
<b>CBSE Class 12 - Science Stream</b> <b>Delhi World Public School, Kalyani, West Bengal</b>	<i>Completed March 2023</i>

CERTIFICATIONS & TRAINING

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<b>Certificate of Participation on Virtual Internship Program</b> — EduSkills Foundation	<b>Google AI-ML Virtual Internship Certificate</b> — EduSkills Foundation
<b>Microsoft Learn Student Ambassador - Introduction to Generative AI</b> — Microsoft	<b>Digital Marketing Course Trainer Certificate</b> — GIFT Bhubaneswar
<b>SSIP Gujarat Hackathon 2023 Regional Round Participation</b> — SSIP Gujarat	<b>Internshala Student Partner Certificate</b> — Internshala
<b>Machine Learning Internship Completion</b> — CACLD	<b>Sales and Marketing Training</b> — Skill Academia
<b>Frontend Development Internship</b> — CodeAlpha	<b>Guinness Book of World Record</b> — Most People Washing Hands Online Simultaneously
<b>Full Stack Development Training</b> — CyberDojo	<b>Campus Ambassador Certificate</b> — CyberDojo

AWARDS & RECOGNITION

**Elite Silver Rank** - NPTEL Programming in Java Certification (Top Performers Category)

**Lead Organizer** - InnovoCon Hackathon (500+ participants, one of the most prominent college hackathons)

**1st Position Winner** - JISTech 2K23 App-E-Teaser Competition, JIS College of Engineering

**2nd Runner Up - Track 3** - Trithon Trident Hackathon 2023, Bhubaneswar (Certificate of Appreciation)

**SSIP Gujarat Hackathon 2023** - Regional Round Qualified

**Hackathon Veteran** - Participated in 15+ national and regional hackathons with multiple wins and recognitions

**Guinness World Record Participant** - Most People Washing Hands Online Simultaneously

**Microsoft Learn Student Ambassador** - Introduction to Generative AI Certified

**Top Campus Ambassador** - CyberDojo (May 2024 - Present)

**Published Researcher** - 3 research papers published in AI/ML and Computer Vision

**Patent Holder** - 6 patents filed in AI, ML, Computer Vision, and Sustainable Technology

LEADERSHIP & ACTIVITIES

**Tech Defenders Club President** *August 2024 - Present*  
**JIS College of Engineering**

- Leading technical club with 100+ active members organizing workshops, hackathons, and coding competitions
- Managing club operations, event planning, and coordinating with faculty and sponsors
- Organizing weekly coding sessions and mentoring students in competitive programming
- Successfully conducted 5+ major technical events with 500+ total participants

**Co-Founder, CEO and CTO** *April 2024 - Present*  
**Digidenone**

- Co-founded digital solutions and security technology startup, leading both business strategy and technical innovation
- Managing overall business operations, client relationships, product development, and go-to-market strategy
- Leading development of SynapseAudit - professional-grade security code analysis platform featured on Product Hunt and VS Code Marketplace
- Building and managing team of 7+ developers, designers, and marketing professionals
- Overseeing technical architecture, development processes, and engineering best practices
- Successfully delivered 10+ client projects with 100% satisfaction rate while developing flagship security products

**Founder and Team Leader** *December 2023 - Present*  
**Team codeARC**

- Founded competitive programming team participating in national and international hackathons
- Leading team of 8+ talented developers in solving complex algorithmic challenges
- Coordinating team preparation for hackathons and coding competitions
- Achieved top rankings in multiple hackathons including 2nd Runner Up at Trithon Trident 2023

**Lead Organizer - InnovoCon Hackathon** *2024 - 2025*  
**JIS College of Engineering**

- Led organization of InnovoCon - one of the most prominent college-level hackathons with 500+ participants
- Managed end-to-end event planning including sponsorships, logistics, technical infrastructure, and judging panel coordination
- Coordinated with 50+ volunteers and managed budget of ₹5+ lakhs for venue, prizes, and resources
- Secured partnerships with leading tech companies for mentorship and prize sponsorships
- Successfully executed 36-hour hackathon with multiple tracks including AI/ML, Web Development, and IoT

**Hackathon Organizer** - Organized 2 major hackathons including InnovoCon (500+ participants) and college-level technical competitions

**Active Hackathon Participant** - Participated in 15+ national and regional hackathons including Trithon Trident (2nd Runner Up), SSIP Gujarat, Smart India Hackathon, and multiple others

**Campus Ambassador** - CyberDojo, Internshala (Promoted cybersecurity and internship awareness)

**Community Builder** - Organizing tech meetups, workshops, and knowledge-sharing sessions

PUBLICATIONS & RESEARCH

**Fish Freshness Detection Via Hybrid CNN-LSTM: An Interpretable Deep Learning Model** - Springer (Published Mar 15, 2025) - Novel deep learning approach achieving 86% accuracy on test dataset. Research focuses on combining CNNs and LSTMs for image-based classification in food safety domain, providing robust tool for ensuring quality and safety

**Pseudomonas aeruginosa Protein Dataset** - Kaggle (Published Aug 17, 2024) - Comprehensive dataset of Pseudomonas aeruginosa proteins for bioinformatics research, computational biology, and molecular biology. Valuable resource for understanding pathogenic mechanisms and discovering potential therapeutic targets

**Fish Classification Dataset** - Kaggle (Published Mar 18, 2024) - Led machine learning team from JIS College of Engineering creating high-resolution dataset of Rohu fish eyes and gills. Comprehensive training and test datasets with 7-day capture period for innovative classification model development

**Copyright: Understanding the Rohu Fish Automatically** - Intellectual Property India (Issued Jul 2024) - Copyright for dataset and research methodology on automatic Rohu fish classification

ADDITIONAL SKILLS

**Problem Solving:** Strong analytical and algorithmic thinking

**Team Leadership:** Leading multiple teams and managing cross-functional projects

**Technical Writing:** Research papers, documentation, and technical content

**Project Management:** Successfully managed 15+ projects from conception to deployment

**Public Speaking:** Conducted training sessions and workshops for 100+ participants

PATENTS & INNOVATIONS

**Self-Deploying Rescue Airbag System for Miners** - Patent No. 202531035777 A (Issued Apr 12, 2025) - Wearable safety device with inflatable airbag, smart sensors, and high-speed inflation mechanism. Detects hazardous conditions and provides immediate protection, featuring GPS and RFID for real-time tracking and efficient rescue operations

**Adaptive Learning Companion Device** - Patent No. 202531001611 A (Issued Jan 17, 2025) - Innovative AI-powered educational tool integrating advanced hardware with machine learning. Monitors learner engagement and physiological responses in real-time, providing personalized feedback through multiple input formats and seamlessly integrating with educational platforms

**Thermal Imaging Based Employee Attendance Monitoring System Using CNNs** - Patent No. 202431088758 A (Issued Nov 22, 2024) - Revolutionary attendance system using thermal imaging and CNNs for accurate tracking in challenging conditions. Features automated reporting and efficient attendance management with enhanced security through non-identifying thermal imaging

**Advanced and Intelligent Commode with In-built Wash Basin to Save Water** - Patent No. 202431086521 A (Issued Nov 15, 2024) - Intelligent commode system with integrated wash basin for sustainable water use and real-time health monitoring. Processes health metrics data and displays on interface for health-conscious sanitation solution

**Wearable Digital Posture Corrector with Adaptive Feedback and ML-Based Personalization** - Patent No. 202431085561 A (Issued Sep 27, 2024) - Advanced posture correction device with accelerometers and gyroscopes detecting deviations. Provides multi-modal feedback and machine learning-based personalization adapting to individual user patterns for long-term effectiveness

**Optimizing Sustainable Practices: Recycled Waste Management Strategies for Environmental Conservation** - Patent No. 202431065333 A (Issued Sep 6, 2024) - Comprehensive solution-oriented approach to recyclable waste management. Addresses key challenges leveraging innovative technologies, community engagement models, and policy recommendations for circular economies on global scale

LANGUAGES

**English:** Native or Bilingual Proficiency

**Hindi:** Full Professional Proficiency

**Bengali:** Professional Working Proficiency

**Marwari:** Professional Working Proficiency

**French:** Elementary Proficiency