

# Phanindra Kanaparathi

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ECE undergraduate with hands-on project experience in Python workflow apps, cloud infrastructure, backend APIs, RF/antenna simulation, blockchain smart contracts, TypeScript, and web development.

## EDUCATION

**Bachelor of Technology, Electronics and Communication Engineering** | Indian Institute of Information Technology Tiruchirappalli | 2022 - 2026

## PROJECTS

**PD Image Builder** | Local browser workflow app for D2C product-description image concepts, QA, AI image drafts, and PDF export

- Built a local Python backend and browser UI to collect brand briefs, extract reference patterns, generate product image concepts, and score outputs through a QA gate.
- Implemented API endpoints for open-source workflow generation, image generation, and ReportLab PDF export.
- Integrated Hugging Face Inference for image generation with optional Ollama reasoning and SearXNG search support.

**Tech Stack:** Python, JavaScript, HTML, CSS, ReportLab, Hugging Face Inference, Ollama, SearXNG

**iii Quickstart Multi-VM Cloud Deployment** | Terraform-based AWS/GCP deployment for distributed iii engine and worker services

- Provisioned AWS infrastructure with Terraform, including VPC, public/private subnets, route tables, NAT Gateway, security groups, and EC2 instances.
- Deployed a five-node service architecture with nginx API gateway, private iii engine, TypeScript worker, Python math worker, and Python inference worker.
- Automated VM setup using Bash bootstrap scripts, systemd service units, Node.js/Python dependency installation, GitHub-based deployment, and documented validation/cleanup steps.

**Tech Stack:** Terraform, AWS EC2, VPC, NAT Gateway, Security Groups, GCP Compute Engine, Linux, Bash, systemd, nginx, Python, TypeScript, Node.js, GitHub

**Microstrip Patch Antenna Design** | HFSS simulation project for a 14 GHz patch antenna using Rogers RO4350 substrate

- Modeled a patch antenna in Ansys HFSS with Driven Modal setup, radiation boundary, air box, ground/substrate, feed geometry, and parametric dimensions.
- Configured frequency sweeps from 10 GHz to 16 GHz around the 14 GHz design target and far-field radiation setups for gain/directivity analysis.

**Tech Stack:** Ansys HFSS, AEDT, Rogers RO4350, RF Simulation, Antenna Design

**Blockchain Smart Contracts** | Crowdfunding and lottery smart contracts built with Solidity and maintained on GitHub

- Built a crowdfunding contract with contributor tracking, minimum contribution checks, funding deadline, refund flow, manager-only spending requests, and contributor voting.
- Built a lottery contract with participant entry, manager-only balance access, winner selection, prize transfer, and player reset logic.

**Tech Stack:** Solidity, Remix IDE, Ethereum Testnet, Etherscan

## TECHNICAL SKILLS

<b>Languages</b>	Python, TypeScript, JavaScript, Solidity, C, C++, HTML, CSS
<b>Tools / Platforms</b>	Git, GitHub, Terraform, AWS EC2, GCP Compute Engine, Linux, Bash, systemd, nginx, Ansys HFSS, ReportLab, VS Code, Remix IDE
<b>Coursework</b>	Data Structures and Algorithms

## CODING PROFILES

**LeetCode:** [phanindrakanaparathi](#) | **GeeksforGeeks:** [phanindrakanv0qx](#) | **HackerRank:** [phanindra029](#)

## INTERNSHIP

**Internship Trainee** | Electronics and Radar Development Establishment (LRDE), DRDO | June 2025 – July 2025

- Completed an internship in an electronics and radar engineering environment at LRDE, DRDO.
- Worked on a project related to microstrip patch antenna design and engineering documentation.

## LEADERSHIP AND ACTIVITIES

**Fine Arts Club Coordinator** | Aesthetic Fine Arts Club, IIIT Tiruchirappalli | September 2023 - April 2026

- Coordinated club activities and supported cultural and fine arts events on campus.

**GDSC Club Member** | Google Developer Student Clubs, IIIT Tiruchirappalli | August 2023 - May 2024

- Earned Google Cloud skill badges and supported event planning, execution, and social media communication.

**Web Development Club Member** | IIIT Tiruchirappalli | April 2023 - April 2024

**Competitive Coding Club Member** | IIIT Tiruchirappalli | July 2023 - May 2024

## INTERESTS AND SOFT SKILLS

**Interests:** Backend Systems, Cloud Infrastructure, AI Workflow Tools, Antenna Design, Blockchain Development | **Soft Skills:** Problem Solving, Self-Learning, Presentation, Adaptability