

# DEEPAN R

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## EDUCATION

### Shiv Nadar University, Chennai

Aug 2024 – July 2028

B.Tech — Computer Science & Engineering (Register No. 24011103042)

CGPA: 8.5 / 10

Activities: POC Coding Club (Cybersecurity vertical) · NSS Volunteer (80+ hours) · Class Representative

## EXPERIENCE

### Azhagi — Summer internship & ongoing contributions

Modernized a legacy C++ transliteration app by developing a React Native frontend and integrating the existing C++ core via a JNI bridge.

Built real-time phonetic transliteration interface: Created a notepad-like editor where English keyboard input instantly converts to Tamil script display (e.g., typing "vanakkam" shows வணக்கம் in real-time).

Internship: 1 month during summer break; continuing periodic contributions and maintenance.

## PROJECTS

### STACKED — Personal full-stack media tracker 🗄️

Unified dashboard aggregating libraries, progress, reviews and recommendations across Letterboxd / Goodreads / Anilist / IGDB / OpenLibrary / IMDb.

Built modular service adapters and two-way sync so actions replicate between Stacked and source platforms; implemented conflict resolution and resumable background jobs.

Tech: Next.js (TypeScript), Supabase (Postgres, Auth, Realtime); adapter pattern, idempotent update pipelines.

### WIN-MY-ARGUMENT — Retrieval-augmented argument assistant 🗄️

RAG pipeline: ingest → chunk → embed → index for fast semantic search and evidence retrieval.

Generates structured claims, supporting evidence, counter-arguments and rebuttals with inline citations of scientific papers with 95% accuracy; exports to Markdown/PDF.

Focus on precision: tuned chunking, retrieval thresholds and hallucination safeguards.

### NGL-HACKED — Web Security Awareness Demo 🗄️

Built a spoofed clone of anonymous messaging apps to demonstrate phishing and social engineering risks.

Developed with React, TypeScript, Vite and Airtable backend, featuring link generation, rate limiting, and analytics.

Showcases how realistic UI replication can exploit trust, while educating users on domain verification and online safety.

### PDF OUTLINE EXTRACTOR (Hackathon) 🗄️

Built a Python + React tool to extract structured document outlines (Title, H1–H3 headings with page numbers) into validated JSON.

Implemented a hybrid heading-detection system using PyMuPDF with font/position/whitespace features and fallback parsing, boosting accuracy to 95%+ across 50+ diverse PDFs.

Optimized for offline AMD64 Docker builds — reduced runtime to under 2s per 100-page document with minimal resource usage.

## TECHNICAL SKILLS

**Languages:** TypeScript, Node.js, Python, C/C++, PostgreSQL, MongoDB, HTML/CSS/JavaScript, Java, SQL, Bash

**Frameworks & Tools:** React.js, Next.js, Express, Tailwind CSS, jQuery, Flask; Git, Docker, Azure, Supabase, Wireshark, Coolify, Selenium, Postman

## HONORS & AWARDS

CTF: 1st in ASIS CTF Quals 2024, 2nd in FAUST CTF 2023; Participant in picoCTF 2024, SECCON CTF Quals 2023

Top 200 — International CTF by HackTheBox

Winner — EditaHacks 2024

HPCodeWars — 27th nationwide (2024)

## LEADERSHIP & EXTRACURRICULARS

POC Coding Club (Cybersecurity vertical)

NSS Volunteer — 80+ hours

Class Representative

Creative pursuits: Dancer, content creator/editor, authored 2 short film scripts & multiple blogs, currently writing a novel

Competitive sports: District-level hockey player

Full Stack Engineer • Creator • Competitor