

DENEL B JOHN

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SUMMARY

Full-stack and AI engineer shipping production systems from model to interface. Completed a Software Engineering Internship at CGI; built a packaging pipeline that automated a process previously run on a 10-day manual SLA. Builds computer-vision and web products: facial-recognition attendance, plant-disease classification, AI study tools.

NOTABLE ACHIEVEMENTS

- Gamification research adopted into university curriculum and delivered to 200+ students.
- Trained a plant-disease image classifier to 99.13% validation accuracy across 38 crop-disease classes on 54,000+ images.
- Open source contributor: merged pull request in NVIDIA garak, active pull requests in vLLM (LLM inference engine).

EDUCATION

Manipal University Jaipur

Aug 2023 – May 2027

B.Tech, Computer Science & Engineering (AI/ML), Jaipur, India

Coursework: Machine Learning, Deep Learning, Computer Vision, NLP, Data Structures & Algorithms, DBMS, OOP, Statistics.

EXPERIENCE

Software Engineering Intern

Jun 2026 – Aug 2026

CGI, Bengaluru, India (on-site)

- Built an end-to-end packaging automation pipeline (GitHub Actions, Python, PowerShell) that automated a packaging process previously run on a 10-day manual SLA across thousands of managed devices.
- Automated multi-source discovery (AdminStudio Package Feed, Winget, vendor portals, internal repositories), covering metadata extraction, binary acquisition, and cryptographic integrity validation.
- Staged silent deployments to targeted device groups via the Workspace ONE UEM REST API.

PROJECTS

Attendio — Face Recognition Attendance System

2026 — attend-io.vercel.app

React, TypeScript, FastAPI, Supabase (Postgres, pgvector, RLS), dlib, MediaPipe, GitHub Actions

- Shipped a campus facial-recognition attendance app so students check in on their phone instead of roll call.
- Delivered 1:1 face matching with MediaPipe liveness, dlib, and campus geofencing; photos are not stored.
- Added Student/Faculty/Admin RBAC, live rosters with audit logs, and alerts at 75% attendance or 3 absences in a row.

Synapse — AI Visual Study Canvas

2026 — synapseboard.vercel.app

Next.js 15, TypeScript, Supabase, Clerk, OpenAI GPT-4o, Zustand, Tavily, YouTube Data API, Vercel

- Built a Generative AI study canvas (OpenAI GPT-4o large language model) that turns 1 prompt into 5 parallel results (explanation, ELI5, fact, 3 images, 2 videos), replacing a 5-tab research loop.
- Parallelized LLM and search API calls so each card renders as it arrives instead of blocking on the slowest response.
- Built a multi-board dashboard with authentication, row-level security, optimistic updates, soft delete, folders, auto-generated thumbnails, and per-user rate limiting.

Leaflytics — AI Plant Disease Diagnosis System

2026

TensorFlow/Keras, EfficientNetV2, Python, React, Tailwind CSS, Recharts

- Built an end-to-end leaf diagnostic flow: upload an image, run deep-learning inference, and return crop, disease, confidence, and a care suggestion.
- Trained a transfer-learning classifier on 38 PlantVillage classes and reached 99.13% validation accuracy with a 0.67% train-validation gap.
- Added production guardrails: 5 MB file limit, image-type checks, 224x224 preprocessing, and a 60% confidence floor that returns "Uncertain" instead of a bad diagnosis.

SKILLS

Languages: Python, TypeScript, JavaScript, Java, C, C++, SQL, Bash, PowerShell

AI / ML: TensorFlow, Keras, scikit-learn, NumPy, Pandas, OpenCV, MediaPipe, dlib, CNNs, transfer learning

Web & APIs: React, Next.js, Node.js, Express, FastAPI, REST APIs, OpenAI API, Tailwind CSS, Zustand, Clerk

Data & Infrastructure: PostgreSQL, Supabase, MySQL, Git, GitHub Actions, Docker, Vercel, Workspace ONE UEM

CERTIFICATIONS

- Machine Learning Specialization and Deep Learning Specialization, Stanford University & DeepLearning.AI (Coursera).
- Introduction to Machine Learning, NPTEL, Elite + Gold (top 5% nationwide).
- Python Essentials 1 & 2, Cisco Networking Academy; Database Programming with PL/SQL, Oracle Academy.