

Debjit Das

Software Engineer

Profile Summary

Highly motivated and detail-oriented Computer Science Engineering student with strong foundational knowledge in web development, backend programming, and database management. Proficient in technologies like Python, Django, PostgreSQL, and JavaScript, with experience in developing scalable and user-friendly applications. Adept at solving complex problems through Data Structures and Algorithms (DSA) and Object-Oriented Programming (OOPS).

Projects

Society Service Management System

2024-2025

Technologies Used: HTML, CSS, Django, PostgreSQL

• Role: Backend Developer

Designed and implemented server-side logic, database schema, API endpoints, and integrated dashboards.

• Requirement to Specification Mapping:

Analysed housing society workflows and user needs to define specs like:

- Complaint registration and tracking system
- o Role-based dashboards for residents, managers, and service providers
- o Real-time communication channel between residents and admins

Approach:

Adopted Agile methodology. Built backend using Django REST Framework. Used normalized relational schema with PostgreSQL.

• Features:

- Resident registration and secure login using JWT
- Issue submission with real-time status update
- Admin dashboard to assign service tasks
- Notification for issue resolution and service provider assignment
- Role-base access and privilege management

• Testing:

Implemented unit and integration testing using Django TestCase. Manual and automated UI tests were done to validate user journeys.

SDLC Involvement:

Participated in full lifecycle – requirement gathering, planning, development, testing, and deployment. Used Git, Trello for versioning and task management.

• Technical Knowledge Applied:

RESTful API development, database design (3NF), secure authentication (JWT), MVC architecture, test automation, server-side rendering, deployment prep.

Life Vault 2025

Technologies Used: Python, Django, PostgreSQL, AWS

Role: Full Stack Developer

Handel both frontend and backend logic, encryption logic, and AWS deployment.

• Requirement to Specification Mapping:

Users wanted a secure way to store sensitive documents (IDs, passwords, legal papers) and ensure automatic handover to trusted nominees in case of death or long-term inactivity. Specifications included:

- o Encrypted storage with secure access control
- Nominee-based file release system
- o Inactivity tracking and scheduled notification

Approach:

Implemented an inactivity-based detection system using a scheduled background task. If users do not log in for a user-defined duration (default: 180 days), the system initiates a multi-step verification and asset handover process to nominees. AWS was used for hosting and secure file storage.

Features:

- Encrypted document upload with user-based access
- Nominee management panel for assigning trusted recipients
- Inactivity tracking system (via last login timestamp)
- Automated email notices and final warnings after inactivity
- Secure handover to nominees with OTP verification and time-limited download access

• Testing:

Developed unit and integration tests for handover workflow, inactivity tracking, file encryption/decryption, and nominee access control. Used Celery beat for cron-based testing and Postman for API flow validation.

• SDLC Involvement:

Drove the project from end to end — from gathering user needs and defining functional specs, to designing backend architecture, implementing frontend forms, deploying on AWS EC2, and testing. Used GitHub for version control and Trello for Agile task tracking.

Technical Knowledge Applied:

Django ORM, Celery with Redis for scheduled background jobs, AWS S3 for secure file storage, PostgreSQL for relational data modelling, AES encryption, JWT-based auth, role-based access control, and email dispatch using SendGrid/SMTP.

Skills

• Programming Languages: Python, JavaScript, C

• Web Development: HTML, CSS, Django

Database Management: PostgreSQL

• Cloud Technologies: AWS, Cloud Computing

 Core Subjects: Data Structures & Algorithms (DSA), Object-Oriented Programming (OOP), Operating System, Compiler Design, Computer Networking, DBMS

Certifications

- **Python for Beginners** Simplilearn
- **Deloitte Technology Job Simulation** Forage

Education

B. TECH in Computer Science Engineering

Sanaka Educational Trust's Group of Institutions (Currently in 7th Semester)

Personal Profile

DOB: 3rd June, 2004 **Gender**: Male

Languages Known: English, Hindi, Bengali. Address: West Bengal, Pin-721140