

Mayank Roy

Philadelphia, PA 19104 | (215) 833 8255 | official.roymayank@gmail.com |

Linkedin: <https://www.linkedin.com/in/roy-mayank/> | Github: <https://github.com/roy-mayank>

EDUCATION	University of Pennsylvania , School of Engineering & Applied Science, Philadelphia, PA Master of Computer and Information Science Relevant Coursework: Software Systems, Big Data Analytics, Geospatial Cloud Computing (Spring 2026)	Expected May 2027
	SRM Institute of Science and Technology , Chennai, India Bachelor of Computer Science and Engineering, GPA: 3.97/4 Relevant Coursework: Data Structures & Algorithms, Operating Systems	May 2025
SKILLS	Programming Languages: Proficient in: Python, Javascript, C++, SQL, HTML5/CSS3; Familiar with: Java, Typescript Frameworks: Next.js, Vue.js, Nuxt.js, React, Flask, Django, Node.js Tools: Git, AWS, Redux, PostgreSQL, Docker, MongoDB, Firebase, Supabase, PostGIS	
EXPERIENCE	UNIVERSITY OF PENNSYLVANIA – Philadelphia, USA <u>Graduate Teaching Assistant – Database and Information Systems (CIS 550)</u>	September 2024 – Present
	CINKOD DEVELOPER COMMUNITY – Chennai, India <u>Full Stack Developer Intern</u> <ul style="list-style-type: none">Architected robust and scalable PostgreSQL backend and RESTful API middleware features pertaining to user authorization and metadata management for an inter-college developer organization across 13+ collegesEngineered intuitive, streamlined role-based console for assigned college administrators to manage events, ticketing, and user registration; Analyzed role-based data obtained to drive up engagement through UX by roughly 5%Contributed to decision making on DB hosting, dramatically reduced monthly infrastructure costs by 35% through thorough analysis of AWS EC2 usage optimization patterns and neglecting use of managed servicesShipped assigned features 1 week before deadline by using pre-requisite knowledge effectively; communicated with networks in competitive software startups to learn time and cost efficiency methods	April 2024 – June 2024
	SECURRA HEALTH – Chennai, India <u>React.js (Frontend Developer) Intern</u> <ul style="list-style-type: none">Used React.js framework to develop modern frontend interfaces for the web-app version of an existing mobile application that tracks user health metricsUtilized Azure Devops (specifically azure repos) to collaborate with 2 other interns for creation of a ‘user health dashboard’ displaying critical metrics and medical notifications sourced from REST API callsCollaborated closely and passionately with the lead frontend developer for creating frontend state and context management solutions using redux; brought down instance costs by ~8% upon minimizing calls to the database.	June 2023 – July 2023
PROJECTS	PennCloud , CIS 5050 – Software Systems / 2025 <ul style="list-style-type: none">Engineered a highly available distributed storage and messaging backend using C++ in a docker environment, implementing a custom Key-Value store to manage file manifest, metadata, emails and more.Architected a highly fault tolerant replication engine based on Paxos Consensus model to ensure strong consistency between server nodesDeveloped a robust checkpointing and recovery logic to minimize downtime, prevent data loss, network partitions and ensure quickest recovery Fleetwise , IIT Mumbai Hackathon / 2023 <ul style="list-style-type: none">Initiated efforts to participate in a national hackathon @ IIT Mumbai; collaborated to build a fleet management siteDeveloped a robust and scalable next.js (/app router) for frontend, PostgreSQL, SQLAlchemy, and FastAPI for the backend; Demonstrated exceptional problem-solving and adaptability by creating text-based navigation using FastAPI, pivoting effectively when we discovered late into the project that interactive map navigation libraries were not supported.Implemented containerization with Docker and hosted image on DockerHub, streamlining CI/CD process, reducing setup time in hosted environments by 20% Personal Portfolio / 2023 <ul style="list-style-type: none">Coded a portfolio application utilizing svelte-kit for frontend, Go based backend (for some functionalities) and firestore	
ACTIVITIES	Lead Representative - CHIPSET / 2023-2024 <ul style="list-style-type: none">Coordinated two major annual events – ‘Hello Hackers’ and ‘TechXchange’, chaired club recruitments processes and organized 5+ workshops to impart senior year technical knowledge and useful tips to freshman students Volunteer at Engin / 2025 <ul style="list-style-type: none">Volunteered to virtually teach English 1-on-1 for 6 months to a Ukrainian refugee committing 2 hours each week.	