AKSHITA SINGH

Boston, MA | akshita.as02@gmail.com | +1 (857) 707 8315 | [LinkedIn](#) | [GitHub](#)
Available: May 2025 onwards for Co-op or Internship

EDUCATION

Northeastern University, Boston, MA   **Expected: May 2026**
Candidate for Master of Science in Computer Science   **(CGPA: 3.43/4)**
Relevant Courses: Programming Design Paradigm, Algorithms, Web Development, HCI

SRM Institute of Science and Technology, Kattankulathur, India   **Sept 2020 - June 2024**
Graduated Bachelor of Technology in Computer Science and Engineering with *Distinction*   **(CGPA: 9.63/10)**
Relevant Courses: Algorithms, Operating Systems, Computer Architecture, Information Storage, DBMS, AI

TECHNICAL KNOWLEDGE

Programming:	Python, Docker, Java, JavaScript, React, Node.js, TypeScript, SQL, AWS
APIs:	OpenAI API, Google Gemini API, Stripe API, MongoDB Atlas API, Redfish API, Postman API
Tools:	Version Control (Git), Unit Testing Frameworks (Pytest, Selenium), Software Testing, CI/CD Platforms, Linux Environment, Postman
Skills:	DevOps, CI/CD Pipelines, Test Automation, Python Automation, Infrastructure Management, System Monitoring, Troubleshooting, Problem-Solving, Collaboration, Version Control, API Integration, Scalable Systems

PROFESSIONAL EXPERIENCE

Civic AI Lab, Northeastern University | *Graduate Student Researcher*   **May 2025- Present**

- Designing and implementing adaptive AI collaboration systems using **Python** and **Figma**, focusing on **human-computer interaction (HCI)** and **user experience (UI/UX)** in complex simulations.
- Developing **real-time** music visualizations with TouchDesigner and **OpenAI API**, conducting **user testing** to enhance accessibility, demonstrating **high-performance algorithmic development**.

Dell Technologies, Bengaluru, India | *Software Testing Intern – Drives and Networking Engineering*   **Aug 2023 - Aug 2024**

- Validated critical drive firmware across Dell platforms, ensuring **system integrity and cross-platform compatibility**, demonstrating a meticulous approach to **software quality assurance**.
- Automated test cases with Python, Pytest, Redfish API, Django, and Selenium, **reducing testing time by 30%** and manual BIOS diagnostics by **70%** through custom Platform Testing Dashboard.
- Enhanced storage testing by integrating diverse architectures (SAS, SATA, NVMe, BIOS), enabling robust **multipath server connectivity** and contributing to **system reliability**.

Bharat Heavy Electricals Limited, Haridwar, India | *Vocational Trainee - Computer Centre*   **June 2023 - July 2023**

- Implemented a Facial Expression Recognition project using **Python**, OpenCV, and TensorFlow, showcasing applied **AI/ML** skills and data analysis for practical applications.
- Analyzed network protocols and prepared technical reports on networking and communication systems, building foundational knowledge relevant to **back-end data handling**.

PROJECTS

WanderWise –AI Trip Planner | TypeScript, Next.js, Gemini AI, Llama2-7b LLM, RAG, Firestore   **June 2025 – Present**
[Project Link](#)

- Architected **AI-driven travel planning system** using **Llama2-7b LLM** and **RAG architecture** with **Chroma vector database**, **reducing itinerary creation time by 95%.**
- Developed **microservices architecture** spanning 9 specialized services, including **ML pipelines** and **real-time scrapers**, supporting **sub-second response times** for a **24x7 global infrastructure**.
- Implemented **hybrid database solution** combining **MongoDB** and **Firestore** to optimize for both flexible document storage and **real-time multi-platform synchronization**

DevOnBoard - Developer Onboarding Simulator | React, Node.js, Docker, MongoDB [Project Link](#)   **May 2025 – June 2025**

- Developed **full-stack** onboarding simulator with 15+ interactive coding challenges replicating real-world deployment and troubleshooting scenarios.
- Built a **containerized environment** supporting 5+ tech stack configurations with automated progress tracking and **Docker integration**, demonstrating experience with scalable engineering tools.
- Implemented troubleshooting scenarios covering 10+ production issues with step-by-step validation and **REST API integration**.

NU Marketplace | MongoDB, NodeJS, ExpressJS, ReactJS [Project Link](#)   **Sept 2024 - Dec 2024**

- Developed a **full-stack web application (React, Node.js, MongoDB)** enabling seamless product listing and **secure transactions**, demonstrating end-to-end product development for a dynamic marketplace.
- Built a modular frontend with React and TypeScript, implementing Server-Side Rendering (SSR) and designing scalable MongoDB schemas with advanced aggregation for efficient **back-end data handling**.
- Integrated Clerk for **secure authentication** and role-based access, **reducing onboarding time by 60%** and enabled Stripe payment integration with webhook support for **automated** order updates.