

# Ashmit Deb

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## EDUCATION

### UNIVERSITY OF MICHIGAN

*Bachelor of Science in Computer Science*

*Minor in Entrepreneurship*

**Ann Arbor, MI**

Aug. 2023 - May 2026

- **Cumulative GPA:** 3.4/4.0
- **Extracurriculars:** Michigan Financial and Math Society (MFAMS) & MHackers

## EXPERIENCE

### SIGRAY

*Software Engineering Intern*

**Benicia, CA**

May 2025 - Aug. 2025

- Focused in CI automation testing for Sigray's AttoMap™ micro-XRF platform creating BDD Gherkin scenarios in Reqnroll and SpecFlow while driving them with OpenQA Selenium, C#, .NET 8, NUnit, and Azure DevOps exercising instrument-control APIs, spectral-analysis pipelines, and GUI workflows.
- Integrated ML-based spectral decomposition & ROI clustering by implementing k-means notebooks in Jupyter along with Python and embedded automated mineral phase segmentation directly into the analysis pipeline.
- Optimized UI performance through refactoring async data-binding, layout virtualization, and telemetry driven tuning while trimming initial load & scan-preview latency by 30% ensuring releases met functional targets.

### BLUE CROSS BLUE SHIELD OF MICHIGAN

*Data Engineering Intern*

**Southfield, MI**

May 2024 - Aug. 2024

- Conducted source-to-target mapping to retrieve data transformation and migration across systems while utilizing SQL and ETL processes to maintain data consistency and optimize integration workflows.
- Used Power Automate along with Sharepoint for IT intake forms while also storing and formatting confidential patient inquiries for data integrity.
- Utilized TriZetto Facets to log and track inquiry tickets with Cognizant, validating end-to-end (E2E) and system-integration (SIT) workflows in non-production environments to ensure accurate claim diagnostics.

### UNIVERSITY OF MICHIGAN - EECS DEPARTMENT

*Electrical Engineering Intern*

**Ann Arbor, MI**

June 2023 - Aug. 2023

- Collaborated with Professor Amir Mortazawi's postgraduate research team at the University of Michigan, developing a wireless power transmission system while utilizing amplitude modulation frequency.
- Operated different analog circuit simulators including LTspice while working hands on with RLC circuits and converting 1 MHz radio waves into an AC voltage source.

## PROJECTS

### Stock Sentiment Analysis Utilizing Reddit API

- Built a multithreaded C++ tool that pulls posts from r/wallstreetbets, r/stocks, and r/investing through Reddits API (cURL + JsonCpp) and applies a weighted sentiment model presenting results through a live CLI and auto generate HTML report.
- Used modern C++ practices (RAII, STL, concurrency) to streamline data ingestion and scoring, delivering fast, actionable stock-sentiment insights.

### Arduino Based Night-Lamp

- Developed and designed an efficient Arduino-based LED Matrix Night-Lamp utilizing a C++ variant programming language tailoring light sensor data and button inputs to produce an interactive display.
- The hardware and software used adjusts the display using natural light as well as also offering a manual button to change the user's brightness preference and LED aesthetic design choice.

## SKILLS

- **Technical Languages:** C#, C++, C, Python, Java, SQL, JavaScript, HTML/CSS, MATLAB
- **Frameworks & Libraries:** OpenQA Selenium, .NET, WPF/MVVM, Reqnroll (BDD), NUnit, Jupyter
- **DevOps & Tools:** Azure DevOps Pipelines, AWS, Git, JIRA, Power Automate, MySQL Workbench, Excel