

Lisul Elvitigala

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EDUCATION

Stony Brook University

Expected May 2028

B.S. Computer Science

GPA: 3.86/4.00

- **Honors:** Presidential Scholar (university merit scholarship); Dean's List in all four completed semesters
- **Teaching Assistant:** CSE 114 (Java OOP), Spring 2026: led a weekly ~20-student lab, office hours, grading
- **Coursework:** Systems Fundamentals II, Algorithms, Data Structures, Linear Algebra, Probability & Statistics

EXPERIENCE

Hitachi Rail

Jun 2026 – Aug 2026

Software Engineer Intern, Onboard Systems | C++, C#, .NET, PyTorch, OpenCV

Woodbury, NY

- Built and unit-tested GTFS-Realtime (Protobuf) and TAIP (UDP) adapters in C#/.NET to bring bus GPS into dispatch; validated on MBTA's live feed, 500+ buses at once, ahead of a planned LA Metro rollout.
- Extended a C++ dispatch server's TCP protocol to v3, adding agency names to its messages so one server can route multiple agencies; built security-reviewed ASP.NET/JavaScript web forms for operators to add feeds.
- Pitched computer-vision tracking to the CTO so depots can locate buses cheaply in real time; led its 13-intern team, fine-tuned PyTorch YOLOv8, built 2-stage OCR and homography; demo verified all 15 fleet-ID reads.

Cloud Data Pro

Jan 2026 – Present

Software Engineer (Part-Time) | PHP, WordPress, TypeScript, Playwright

Remote

- Rebuilt a nonprofit's 2017 WordPress site as a custom block theme so it loads fast: home page 2.9 MB to 616 KB (pre-launch). Wrote a PHP importer migrating 386 items and CI that checks all 550 old links still resolve.
- Built a PHP endpoint so HMAC-verified Zeffy webhooks keep fundraiser totals from going stale, no hand edits.

Clever Devices

Jun 2025 – Aug 2025

Software Engineer Intern, CleverCAD | Python, REST APIs, Docker, SQL

Woodbury, NY

- Debugged and fixed a REST API bug where clearing a vehicle attribute reported success but saved nothing; the data layer now clears empty values and skips omitted fields, so clears persist; shipped on 4 release lines.
- Wrote a multithreaded Python fuzzer, run in Docker, sending Gemini-generated payloads to the Fleet Manager REST API; found 3 unhandled exceptions, including an API crash on a long malformed request.
- Ended a production outage: traced a logged SQL error to a byte order mark and removed it in a tested hotfix.

PROJECTS

Micromouse Maze-Solving Robot | IEEE Stony Brook | C/C++, Pi Pico, CMake Aug 2024 – Present

- Wrote the 2026 robot's C++ firmware on open-source UKMARS (ToF sensing, A* routing) that ran 2nd at NYIT 2026 (38 s); simulator-tested each algorithm, incl. a state machine shortening A* zigzags into diagonals.
- Traced turn overshoot to ~40 ms IMU yaw latency; encoder-yaw PD cut worst-case spin error 2.75° to 1.01°.
- Captain 3 seasons, giving each member a component to own with deadlines set at weekly builds: 2nd of 15+ and Best Design at MIT 2025, 2nd at NYIT 2026; in Fall 2026, picked 13 of 101 applicants after 20 interviews.

WorkIt: Early-Career Job Aggregator | Python, PostgreSQL, GitHub Actions Aug 2026 – Present

- Built a Python scraper filtering 1,800 boards (Greenhouse, Lever, Ashby) to 1,000+ internship and new-grad roles; cut routine runs 9.5 to 3 min via per-provider thread pools, rechecking no-match boards every 3rd run.
- Scheduled the scrape-to-PostgreSQL import in GitHub Actions; its dry run on import-changing PRs caught a database schema mismatch before merge; added a CI test-and-lint job (145 of 252 scraper tests mine).

SKILLS

Languages: C++, Python, C#, C, SQL, Java, JavaScript, TypeScript

Frameworks & Libraries: .NET, ASP.NET, PyTorch, OpenCV, Ultralytics YOLO, Protobuf

Tools: Git, Docker, PostgreSQL, GitHub Actions, Linux, CMake, GDB, GitHub Copilot, Claude Code