Alwin Anto

✉ alwinanto@utexas.edu ☎ (512)740-1168 LinkedIn: alwinanto GitHub:kiliyan

Education

University of Texas at Austin Aug 2024 - May 2026 (expected)

- Master's in Computational Science Engineering and Mathematics **GPA 3.8/4.0**

Indian Institute of Technology (IIT) Kharagpur July 2017 - May 2022

- Intgerated Bachelor's and Master's of Technology in Civil Engineering **9.2/10** ; Minor in Mathematics **8.3/10**

Work Experience

Piramal Finance Mumbai, Maharashtra

Data Scientist, Business Intelligence Unit (Risk Analytics) *Jun 2022 - Jun 2024*

- Led the transition from **manual to ML-driven decisioning** (**XGBoost** score) for new to credit customers (**8% of portfolio**). **32 KS** using geo-intelligence and payment behavior features (industry standard 24).
- Partnered cross-functionally with data, product, risk teams to define metrics, validate data pipelines for **model monitoring dashboard** and ensured reliability of decision-critical **portfolio risk dashboard**
- Primary **point of contact** of **4** third-party data vendors, led evaluation via model lift, stability and risk separation. Actively supported **product deployment** by validating data integrity and pipeline correctness.

Projects

Material Point Method Simulations, UT Austin January 2025 - Present

Graduate Research Assistant (Grant Funded by NSF)

* Achieved **85% parallel efficiency** with custom MPM C++ codes to simulate 2D elastic disc collision on Stampede cluster using MPI scaling upto **500 cores, 5 million particles and runtime under 2 minutes**.
* Formulated beam particle to use in material point method and currently working on the simulation of deformation of network of fibers using Julia.

FEM solver for the 2D poisson equation Sep 2025 - Dec 2025

* Integrated external libraries (Eigen, HDF5 etc) and custom codes (mesh generation,stiffness matrix creation, I/O, verification, test suite etc) into a modular build system using CMake
* Implemented testing and **CI/CD** pipeline: achieved 75%+ code coverage with Boost tests, ensured memory safety via Valgrind, and automated cross-platform builds/tests using Docker (multi-arch) and GitHub Actions

Master's Thesis, IIT Kharagpur July 2021 - May 2022

* Simulated concrete beam and column behavior under fire using Concrete Damage Plasticity Model in **Abaqus**. Used **Eurocode 2** for stress strain relations and **ASTM E119** to model the temperature
* Used the simulation results to train **regression models** like RANSAC,Huber, etc to predict the load capacity. Achieved R^2 value of **0.99** for column and beam strength prediction

Technical Skills

Software/Languages: C++, Python , Julia, SQL, AWS services (Sagemaker,Lambda,Glue and S3), Docker

Relevant coursework: Convex Optimization, Linear Algebra, Probability and Statistics, Stochastic Processes

Awards and Achievements

Department Topper: Highest CGPA at the end of 3rd,4th and 5th year in a batch of 75 students in Civil Engineering. Recipient of J.C Ghosh Memorial Endowment Prize and B.L Nagpal Memorial Prize for academic excellence

Open IIT Data Analytics Gold: Part of 6 member team that bagged **1st** position in the intra-college competition. Estimated the optimal stock and order amount to maximize the profit of a pharmacy.

NFLAT 2015: All India rank 4 in the National Financial Literacy Awareness Test conducted by National Centre for Financial Education with more than 200k participants

BIU Analytics award: Recognized by Piramal Finance's MD for contributions to the NTC underwriting framework.