

Alwin Anto

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EDUCATION

University of Texas at Austin

Aug 2024 - May 2026 (expected)

- Master's in Computational Science Engineering and Mathematics **GPA 3.78/4.00**

Indian Institute of Technology (IIT) Kharagpur

July 2017 - May 2022

- Integrated 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

- Built an **XGBoost** based credit score (core criteria) for the decision making of New-to-Credit customers (**8% of customer base**), leveraging geo-intelligence and payment trends; achieving **32 KS** (industry standard 24)
- Led **data quality assurance and logic remediation** for the company's portfolio risk dashboard coordinating with data engineering , visualization teams and other stakeholders
- Part of a 3 member team that built a state of the art **model monitoring dashboard** in Powerbi to track various metrics like PSI, CSI, **bivariate shift**, risk metrics as early warning signal, custom model scores etc.

PROJECTS

Material Point Method Simulations, UT Austin

January 2025 - Present

Graduate Research Assistant (Grant Funded by NSF)

- * Wrote custom MPM C++ codes to simulate 2D elastic disc collision on Stampede (TACC) cluster using MPI scaling upto **500 cores, 5 million particles**, runtime under 2 minutes with **85% parallel efficiency**.
- * Currently working on the simulation of deformation of network of fibers (Neo-Hookean model) 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, 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.