

DENNY B. JUSTIN

IIT Kharagpur, India

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Education

Indian Institute of Technology Kharagpur

November 2020 – May 2025

Dual Degree in Agricultural and Food Engineering (B.Tech + M.Tech Dual 5 yr)

Kharagpur, India

Agricultural Systems and Management Specialization

Proficiencies

Area of Focus: Quantitative Finance, Investment Banking, Statistical Modelling, Machine Learning, Big Data Analysis

Hard Skills: Python, RStudio, C/C++, Pandas, Matplotlib, OpenCV, Google Big Query, SQL, MS EXcel, SPSS

Relevant Coursework: Python and Statistics for Financial Analysis, Economics, Bloomberg Market Concepts, Statistical Modelling of Hydroclimatic Extremes, Probability and Statistics, AI in Agriculture

Research Experience

Research Intern - Assessing Bankruptcy Risk in Indian PSUs in Adoption of TReDS May 2023 – June 2023

Prof. Aswin Alora — Finance and Control Department IIM Kozhikode

IIM Kozhikode, IN

- Studied the impact on bankruptcy risk of Indian firms by analyzing the impact caused on the **Zmijewski Financial Score (ZFS)** due to the adoption of TReDS by Public Sector Undertaking (PSU) firms of India.
- Extracted and analyzed financial data of 90+ firms in India based on pre- and post-TReDS adoption period using **Bloomberg Terminal**; Conducted comprehensive study of **Supply Chain Finance** solution implemented by RBI.
- Identified a **23%** reduction in bankruptcy risk on companies due to TReDS adoption; Deployed **machine learning and statistical models** on financial ratios and Zmijewski Financial Score using Python and SPSS.

Research Assistant - Image-Based Machine Learning using Python

August 2023 – November 2023

Cambridge Judge Business School

University of Cambridge

- Developed a picture coding Machine Learning model using **Python**, leveraging various **computer vision algorithms**
- Leveraged machine learning models to classify text styles using **Python** programming, **OpenCV** for image processing and py-tesseract for **Optical Character Recognition (OCR)**
- Built a **Machine learning model** using Tesseract algorithms to identify text from **2000+** micro-entrepreneur images.

Internship

Equity Markets and Investment Banking Research Intern

January 2023 – April 2023

Finlatics

India

- Built finance and consulting project aiming to assess investment proposals and identify potential start-ups.
- Participated in establishing a **Private Equity fund**, focusing on optimizing investment cycles and sectoral orientation.
- Conducted a detailed analysis of **M&A** in Indian markets to identify successful exits within the private equity space.
- Maintained a real-time virtual stock market portfolio for two months; generated an ROI of **23.19%** with 200k capital.

Projects

Probabilistic Modelling of Temperature Data | Prof. Poulomi Ganguli

September 2023 - November 2023

- Developed a probabilistic statistical model by extracting historical temperature data from open-source NOAA databases, to forecast temperature trends, contributing valuable insights for climate risk management and mitigation strategies.
- Employed Kolmogorov-Smirnov, Cramer-von Mises, and Anderson-Darling tests to validate the fit of the probabilistic model, ensuring high accuracy; achieved a low MSE value of 0.021910
- Applied **gamma distribution** to model temperature variability for understanding of extreme temperature conditions.
- Experienced with **RStudio**, and various R packages including **dplyr**, **ggplot2**, **forecast**, **knitr**, **lubridate**, **changept**, **e1071**, and **fitdistrplus** for advanced statistical analysis.

Statistical Modelling and Multivariate Analysis for Yield Prediction and Visualization | R

February 2024

- Developed predictive models for rice yield using **Principal Component Regression (PCR)** and **Partial Least Squares (PLS)**, demonstrating expertise in handling high-dimensional agricultural data.
- Employed **R programming language**; utilized **pls** and **tidyverse** packages for efficient data analysis and modelling
- Built **Principal Component Analysis (PCA)** to distill critical insights from high-dimensional biomass datasets
- Created **scree plots and biplots** of PCA results using **factoextra** and **ggplot2** packages for data manipulation

Competition / Conference

- **Quant Quest IIT Madras:** Won ***National Rank 2*** at the Algorithmic Trading Competition conducted by IIT Madras: Generated 48.9% ROI using Options Strike and MACD Strategy
- **Beyond Chatbot Fintech Hackathon:** Won ***Top Risk Management Innovation Award*** at global fintech hackathon conducted by Cambridge Centre for Alternative Finance at University of Cambridge.
- **Algorithmic Trading Hackathon:** Designed a profitable portfolio by Algorithmic Trading Strategy with ROI of **102.41%** and Sharp ratio of **2.45** on backtesting.
- **Asia Investment Banking Conference (AIBC) 2023:** One of the **top 350 students** invited globally by LSE.
- **HPAIR 2024:** Got selected among the top 2000 students invited globally for HCONF conducted by Harvard University

Leadership / Extracurricular

- Member of the **Gold** winning football team of Rajendra Prasad Hall of Residence in the sports GC IIT Kharagpur 2023
- **Rajya Puraskar Award** winner in Bharat Scout & Guides; Managed troop of 32 scouts as troop leader for **3 years**
- Secured **Rank 1** in State-level Science Talent Search Exam in 2017; highest possible award in high school
- Among top **1%** mentors at topmate.io (only 2000 mentors globally); Creator in LinkedIn with **200k+** impressions
- Worked as a part-time finance content writer at NISM SEBI, **Published articles:** <https://bit.ly/3viPxYW>