

# Dishan Bhattacharya

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## EDUCATION

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### Purdue University

*Bachelor of Science in Computer Science, Economics (Double Major)*

Relevant Coursework: Linear Algebra, Calculus III, Discrete Mathematics, Data Structures & Algorithms, Systems Programming

West Lafayette, IN

Aug. 2024 - May 2028

## EXPERIENCE

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### John Deere

*Risk Assessment Intern*

- Improved asset valuation model performance by tuning LightGBM models on large-scale financial datasets in Databricks, optimizing feature selection, hyperparameters, and validation workflows.
- Accelerated asset valuation analysis by building scalable Databricks pipelines that processed, cleaned, and transformed valuation data for LightGBM model training and evaluation.
- Enhanced valuation accuracy and model interpretability by engineering financial and asset-level features, tuning LightGBM parameters, and analyzing model outputs to identify key valuation drivers.

May 2026 - Present

Johnston, IA

### John Deere

*Undergraduate Data Science Researcher*

- Partnered with John Deere engineers through the Data Mine at Purdue to translate business requirements into predictive modeling for parts demand forecasting with 1 million unique part and location combinations, leveraging time-series data to train models.
- Designed and refined LSTM models using the full data science life cycle, including feature engineering and evaluation.
- Delivered insights in an Agile environment with team of 9 with 2 mentors, adapting models based on feedback and sprint objectives.

Aug. 2025 - Dec. 2025

West Lafayette, IN

### Purdue University

*Software Developer Intern*

- Developed learning management software with C# backend and React frontend and simulating Azure blob storage with Azurite.
- Implemented exam development and AI-supported question curation features by implementing 6 RESTful API endpoints.
- Executed 4 interactive UI components in ReactJS to display testing data retrieved from backend APIs and SQL queries.

Jun. 2025 - Aug. 2025

West Lafayette, IN

## LEADERSHIP

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### Purdue Student Fee Advisory Board

*Director of Communications*

- Collaborated with a committee of student leaders and university administrators to evaluate and recommend strategic allocation of \$3.5 million in student fee funds after \$13 million in requested funds, assessing 250 proposals per semester.
- Directed correspondence over appeals and distribution of funds to enforce consistent allocation standards for all organizations.

### Boilerexams (Studying Platform for Purdue Students)

*Data Analytics Lead*

- Led an 8-person team to engineer scalable Python workflows (Polars, Pandas) analyzing 9M+ submissions across 188 practice exams, driving a 20% boost in engagement.
- Standardized exam difficulty ratings by analyzing user accuracy, time spent, and solution tool usage, improving content solutions.
- Built Swetrix dashboards and delivered 8 data reports with actionable insights, driving content decisions across 25 courses.

Jul. 2025 - Present

Nov. 2024 - Present

## PROJECTS

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### Tech Startup Success Predictor (Awaiting Publication) | Python, Matplotlib, pandas, scikit-learn

- Hyperparameter-Tuned classifier machine learning models to predict Indian tech startup success with 82% accuracy.
- Employed feature extraction and visualization on startup data to highlight outliers and key findings: Seed lag, social media presence, and amount raised during seed funding as most important features.
- Authored paper awaiting publication at JEI and presented findings at Purdue 2024 Fall Undergraduate Research Expo.

### BoilerExchange! | Python, Git

- Developed a deterministic stock exchange engine using Python with event sourcing to process orders and generate trades.
- Implemented price-time priority matching with a system that satiates partial fills, order cancellations, and order modifications.

## TECHNICAL SKILLS

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**Languages:** Java, Python, C, C++, C#, JavaScript, SQL, HTML, CSS

**Libraries:** Pandas, Polars, NumPy, Matplotlib, React, Node, Astro

**Foundational Knowledge:** Microsoft Azure, Azurite, Docker, Software Design, MS Excel, Equity, Credit Risk, Market Risk, Scrum