

Brady Bogda

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EDUCATION

University of Michigan

Ann Arbor, MI

Bachelor of Science in Engineering, Computer Science; Minor, Math

April 2025

Coursework: Data Structures and Algorithms, Web Systems, Operating Systems, Computer Vision, Linear Algebra, Computational Theory, Probability, Discrete Math, Multivariable and Vector Calculus, Technical Communication

EXPERIENCE

SkySpecs

Ann Arbor, MI

Software Engineer Intern

May 2023 – August 2023

- Designed custom asynchronous React hooks using Typescript in development of core features in Q2 cloud app release, communicated technical details to product team and facilitated review with engineers
- Initiated and implemented second version backend services using GraphQL and PostgreSQL to optimally handle 2M queries/day, updated ingest pipeline to comprehensively handle event stream, and increased asset security by implementing signed URLs with AWS SDK
- Overhauled testing infrastructure from scratch with cypress to expand integration-test coverage by 50% and validate feature changes; leveraged constant feedback from senior developers to enhance quality of code

Applied Educational Systems

Lancaster, PA

Software Engineer Intern

June 2022 – August 2022

- Independently migrated company's customer data from local servers to Google BigQuery tables and implemented a pipeline to stream future data into cloud database from Salesforce
- Delivered a customized analytics service with close communication to the business operations and strategies team to provide automated reports, improving client acquisition and increasing company outlook

PROJECTS

Real Time Options Analytics

March 2023 – Present

Stonebridge Financial Group

- Architected a multi-threaded python application with Interactive Brokers TWS API to continuously capture real time options trade data and store calculations in SQLite database
- Generated framework for placing orders and monitoring positions, to transition to a fully automated trading application, allowing customized strategies with built-in SMS alert system

One-way Flight Connector

April 2023

- Programmed application to optimize flight booking with C++: inputs airport codes, outputs series of flights between destinations minimizing airfare, manages a 3-dimensional cost function
- Utilizes a branch and bound algorithm to solve a variation of the traveling salesman, NP-hard problem, estimates path in quadratic time and accelerates optimal-solution performance with specialized heuristics and pruning

Machine Learning Research

August 2022

- Trained 20+ machine learning models for Kaggle competitions and on open-source databases using Scikit-Learn and TensorFlow's Keras API
- Developed custom python library to optimize models including generalized feature-engineering pipelines, custom models with NumPy, and tools for hyperparameter tuning

SKILLS

Languages: C++, C, Python, JavaScript, TypeScript, GraphQL, SQL, HTML

Technologies: React, Cypress, Linux, Bash, REST APIs, Scikit Learn, Pandas, Flask, Keras, Node, Shortcut

Services: AWS, Google Cloud, Git, Docker, Interactive Brokers