# **Blue Devil Bridges**

a one-on-one mentorship program that pairs undergraduate students with Duke alumni



# Context

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BDB aims to make matches between students and alumni based on career, academic, and other interests.



During the 2023 pilot program, over 800 of the 1200 matches had to be made through a tedious manual process.



The data collection process, scoring system, and matching algorithm needed streamlining.

# Objectives

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**Implement a more nuanced scoring and matching system** to match all mentors and mentees.

Create a web application for admin to upload data from surveys, run the algorithm, and view results and statistics.



#### DATA COLLECTION

A more concise survey enables accurate, efficient data collection from mentors and mentees, with fewer redundant questions and new response limits that prioritize key options.



#### **SCORING SYSTEM**

The revamped scoring system awards points to mentor-mentee matches that have similar responses, even if they are not exactly the same, allowing for flexibility and higher quality pairs.

#### **MATCHING ALGORITHM**

The new two-step process uses the Hungarian algorithm to match students with alumni, then re-matches pairs with alumni willing to take multiple mentees and those with low scores.

#### WATCH OUR DEMO



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## **Next Steps**

Currently, we are discussing applications with the Blue Devils Beyond team, connecting recent graduates with NY-based alumni. Plans include allowing manual pairings before the algorithm runs and integrating with the alumni website to update the database.