

Gabriel Bickenbach

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EDUCATION

Dartmouth College

Hanover, NH

Bachelor of Engineering- Operations Research and Analytics, Minor in Mathematics

August 2023- June 2027

Cumulative GPA: 3.87/4.0, Honor Roll 2023-2024 and 2024-2025

Relevant Coursework: Intro. to Operations Research, Probabilistic Systems (citation for meritorious performance), Abstract Algebra

Colegio Los Nogales - Cumulative GPA: 4.20/4.00

Bogotá, Colombia

High School Diploma, Class Valedictorian

August 2009- June 2023

Honor Roll, AP Capstone, Hanns Seidel Scholarship, National Math Olympiads Winner, Band Drum Major, Math Club President

PROFESSIONAL EXPERIENCE

Asobancaria

Bogotá, Colombia

Spring Term Intern

March 2025- June 2025

- Joined the financial division of Colombia's Banking Association, the institution that connects the nation's private and public sectors
- Optimized by 80% the management of big data within the team to forecast national interest rates across diverse loan types and track the impact of recent laws over Colombia's credit portfolio, helping the largest banks assess strategy and foster financial inclusion
- Conducted a cross-sectional analysis of the state of the financial sector in the main Latam economies to support the seminars and speeches of Asobancaria's 59th annual Banking Convention, one of the most important economic and political events in the region

Super Dual Auroral Radar Network, Thayer School of Engineering at Dartmouth

Hanover, NH

Principal Research Assistant

June 2024- September 2024

- Worked as principal research assistant for Professor Simon Shepherd to renovate his network of space weather radars based in Iceland, listed as co-author for the publication of *SuperDARN Imaging in Iceland and Oregon* to the American Geophysical Union
- Developed the software and hardware of 50 USRPs, designed and produced aluminum rack panels to hold the systems together
- Created code in IDL to calibrate the receiving end of the radars by calculating the time delay between antennas and its uncertainty

Vaze Transportation, Thayer School of Engineering at Dartmouth

Hanover, NH

Intern, First Year Engineering Research Program

January 2024- June 2024

- Selected as the research intern for Faculty Director Vikrant Vaze among the large applicant pool of Thayer's first year class
- Conducted calculations of the demand patterns of New England transportation companies and met with clients to integrate our data
- Created algorithm that can optimize and locate all public transportation stops for any given city network with 85% accuracy

Trenton MOVES by Carts and Princeton University

Princeton, NJ

Data Science Intern

June 2022- August 2022

- Developed a geographic and demographic framework for company datasets, helping the engineering team understand the potential coverage across different New Jersey cities and meet the needs of vulnerable communities such as low-income neighborhoods
- Visited cities across the state and met with local authorities to discuss the logistics of their pilot implementation of our system

LEADERSHIP & PROJECTS

Thayer School of Engineering

Head Teacher Assistant

September 2024 – Present

- Selected as the head TA across introductory engineering courses to support faculty in office hours, grading, and course policies
- Host problem solving tutorials with students, help recruit and select new TAs, and organize weekly strategic team meetings

Dartmouth Energy Alliance

Executive Board, Projects Coordinator

December 2023 – May 2025

- Organized and executed collaborations with regional companies such as the advisory of the Hartford Energy Commission
- Participated in the 2023 Winter Energy Program in Houston and attended energy transition conferences at BCG and ExxonMobil

Dartmouth Center for Social Impact Leadership Program, ColombiAndo

Project Developer and Volunteer

August 2024 – December 2024

- Selected by the DCSI's leadership development program to lead a service project in one of Colombia's remotest regions
- Worked with ColombiAndo, a rural startup, to establish a system of mobile libraries to improve the education of rural children

Other Awards and Involvements: International Students Association Alumni Chair, Collis Center Manager, Hill Winds Society

SKILLS

Skills: Microsoft Excel, Python, Java, C Programming Language, Pandas, Matlab, HTML, IDL

Language: Spanish (native), Portuguese (advanced proficiency)