(763) 321-7263

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basabu1.github.io/Portfolio

### INTRODUCTION

Mathematics student with proven excellence in problem-solving and teaching through mathematical competitions, including an International Mathematical Olympiad medal. Recently expanding into Computer Science and Data Science, with early success in programming contests and course projects. Teaching experience has strengthened my ability to communicate complex ideas and collaborate effectively. While still building technical depth, I bring strong analytical thinking, rapid learning ability, and the drive to apply mathematical rigor to computing and data-driven challenges.

### **EDUCATION**

Macalester College, St. Paul, MN

Expected May 2027

B.A. Mathematics & Computer Science | GPA: 3.96/4.0

Related coursework: Statistical Machine Learning, Computational Linear Algebra, Software Design and Development

# United World College Maastricht, Netherlands

May 2023

International Baccalaureate Diploma, Score: 43/45, Bilingual Diploma

#### **ACHIEVEMENT**

•	Bronze Medal & Honourable Mention, International Mathematical Olympiad	2020 & 2021
•	Mongolian Presidential Award - National Mathematics Team	2020 & 2021
•	1st Place, ASA DataFest Macalester	March 2025
•	1st Place, Macalester Local Programming Contest	April 2025

### **EXPERIENCE**

Teaching assistant | Delgermurun Secondary School, Khuvsgul Province, Mongolia

May - Sept 2025

- Prepared students for the International Math Contest for Juniors; one earned a silver medal
- Designed and maintained a Quarto website hosting math, programming, and English lessons
- Developed and taught an "Intro to Competitive Programming" course covering recursion and dynamic programming

# Member | Young Mathematicians of Khuvsgul NGO, Khuvsgul Province, Mongolia

May 2019 - Present

- Organize free summer math and programming programs for rural students (60+ participants annually)
- Secure sponsorships and collaborated with the provincial governor to provide meals and housing

## ADDITIONAL EXPERIENCE

# Grounds Person | Macalester College, St. Paul, MN

May - Sept 2024

Developed strong time management skills and a deep appreciation for responsibility and teamwork through a full-time job

# **PROJECTS**

- Personal Portfolio website that showcases my work and personal story, built with HTML and CSS from scratch
- Python Calculator: Built advanced features, including cryptarithm solvers and polynomial interpolation
- Java Game: Developed an object-oriented arcade-style game with collision detection and score tracking
- Unity Game (C#): Collaborated via GitHub to implement a team project, applying OOP and version control

## **EXTRACURRICULAR**

- Active in competitive programming on LeetCode and CodeForces; ranked top 10% globally on LeetCode
- Pursuing independent study in software and full-stack development through FreeCodeCamp and other online sources

#### **SKILLS**

Languages & Tools: Python, Java, C, C++, R, JavaScript, HTML, CSS, Git, Unity

Technical Areas: Data Analysis & Visualization, Algorithms & Data Structures, Object-Oriented Programming

Soft Skills: Problem-Solving, Communication, Adaptability, Time Management, Rapid Learning