

# Avaash Bhattarai

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## EDUCATION

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### Grinnell College

*Bachelor of Arts*

*Majors: Computer Science and Mathematics, Minor: Statistics*

Grinnell, IA

*Aug 2022 – May 2026*

**GPA: 3.96/4.00**

**Relevant coursework:** Data Structures, Algorithms, Assembly, Abstract Algebra, Probability and Statistics.

## WORK EXPERIENCE

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### Software Engineer Intern

[Synchron, Inc.](#) — *Building Brain Computer Interfaces (BCI)*

New York City, NY

*May 2024 – Dec 2024*

- Built a multi-threaded internal tool to enable continuous dependency tracking, rapid bug detection and reporting.
- Implemented a 'git merge'-like feature, allowing simultaneous editing by different engineers, avoiding conflicts.
- Increased bug-response speed by up to 3× by engineering a web crawler to find open issues with high accuracy.

### Teaching Assistant: Computer Science

[Grinnell College](#)

Grinnell, IA

*Mar 2024 – Present*

- Tutored and assisted students in Functional Programming and Discrete Mathematics courses.
- Conducted review sessions, provided one-on-one support, developed instructional materials to facilitate students.

### Teaching Assistant: Data Science

[Grinnell College Data Science Lab](#)

Grinnell, IA

*Aug 2023 – Present*

- Held daily tutoring sessions for students enrolled in ML and Applied Statistics courses at Grinnell College.
- Conducted Python boot camps for students of all levels, specializing in machine learning for time series data.

### Software Engineer Intern

*Nepal Investment Bank Ace Capital*

Kathmandu, Nepal

*Aug 2021 – Dec 2021*

- Built an automated tool to generate stock reports, reducing manual work and **saving 20+ hours** per week.
- Researched & applied Markowitz's efficiency theory, built tools to optimize portfolios based on client's risk appetite.

## HONORS AND AWARDS

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- **Dean's List at Grinnell College:** Superior academic achievement (GPA 3.9+) every semester.
- **International Math Olympiad Qualifiers:** Ranked top 25 all Nepal at IMO Qualifiers.
- **Cambridge International Examinations:** Nepal Topper (Rank 1) in A Level Mathematics (12<sup>th</sup> grade).

## PROJECTS

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### GrinEats | App with 1200+ downloads | TypeScript, Python

- Led a team of 5 developers for GrinEats, a scalable, cross-platform dining hall app for Grinnell College
- Designed and implemented a modern user interface, including authentication, account management, and more using React Native, Redux frontend in Typescript, and Python/FastAPI, AWS S3, and MongoDB backend.
- Increased user base to 800+ users in the first two weeks, by simplifying sign up, distributing storage with CDNs

### Kaamcha Nepal | Start Up with 1500+ Users | Python, JavaScript

- Co-founded Kaamcha, a freelancing platform to connect rural talents with urban employers in Nepal.
- Doubled the user base within three months by leading the development of a secure ID verification portal, removing the need for email-based ID verification, and making onboarding smoother.

### Noyying | Route Planning Application | Java, React Native, Graph Theory

- Designed and implemented a map application for the Grinnell College students and faculty.
- Used Spring Boot & Java to build APIs to compute the shortest path between any two rooms on campus.
- Leveraged learnings from Graph Theory classes to find the shortest path using Dijkstra's and A\* algorithms.

## SKILLS

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**Programming:** Python, C, C++, Java, Golang, Javascript/Typescript

**Libraries:** FastAPI, Flask, Spring, Gorilla/Mux, Node.js, React, React Native, Selenium, Matplotlib, Pandas, NumPy

**Technologies:** Git, AWS CDK, Google Cloud, Docker, Kubernetes, RestAPI, Websockets, MongoDB, Postman, CDN

**Soft:** Responsiveness, Organizational, Attention to Detail, Verbal Communication, Independent Problem Solving, Teamwork