

Avaash Bhattarai

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EDUCATION

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: Calculus I, II, & III, Linear Algebra, Discrete Math, Graph Theory, Probability, Computer Architecture & Assembly, Functional, Imperative & Object Oriented Problem Solving, Automata, Formal Language, Computational Complexity, Data Structures & Algorithms, General Physics.

WORK EXPERIENCE

Software Engineer Intern

[Synchron, Inc.](#)

New York City, NY

May 2024 – Aug 2024

- Built an SBOM creation tool to enable continuous dependency tracking, rapid bug reporting for FDA compliance.
- Implemented a 'git merge'-like feature, allowing simultaneous editing by different engineers, avoiding conflicts.
- Engineered a web crawler to crawl GitHub and use package GUIDs to find & identify repos 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

[Data Analysis and Social Inquiry Lab \(DASIL\)](#)

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

- **Dean's List at Grinnell College:** GPA over 3.9/4 every semester.
- **International Math Olympiad Qualifiers:** Ranked top 25 all Nepal at IMO Qualifiers.
- **First place winner at Grinnell College Hack-a-thon:** Built an app over a weekend that scans grocery receipts to track produce and estimate shelf life using optical character recognition and deep learning.

PROJECTS

GrinEats | App with 1200+ downloads | TypeScript, Python

- Led the development of 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 smooth.

Other Projects

- **Noyying:** RESTful API for Route Planning using **Spring (Java)**, **Dijkstra's Algorithm** and **graph theory**
- **S&B Central:** Discord Bot in Python for College class server (300+ members), applied **threading** and **CI/CD**
- **Spaced:** A web app to connect homeowners and college students for summer storage - **Flutter**, **AWS Lambda**

SKILLS

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