

PRATHAM PATHAK

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Education

Fisk University

Bachelor of Science in Computer Science

Cumulative GPA: 4.0/4.0

Relevant Coursework: Google in Residence Program - Introduction to Computer Science I (Python), Introduction to Computer Science II (Java), Calculus I

Expected Graduation: May 2028

Nashville, TN

Skills

Languages: Python, C, Java, HTML, CSS, JavaScript, C++

Tools and Frameworks: Git, Unit test, WordPress, Linux, React

Experience

Reinstalling Hope

July 2022 – May 2024

Program Coordinator

Hybrid

- Assessed tech needs in 6 rural schools, installing and configuring computers for smooth operation.
- Led workshops teaching students to use search engines, create presentations, and write basic code in C.
- Provided ongoing tech support, ensuring reliable access to online resources.
- Managed and trained a team of 13 volunteers to maintain program operations.

Nepalex Pvt. Ltd.

April 2023 – March 2024

Frontend Development Intern

Kathmandu, Nepal

- Developed and deployed a responsive web application using HTML, CSS, and React, resulting in a 40% improvement in mobile user engagement.
- Reduced page load times by 25% through React-based front-end optimization, resulting in a 15% increase in overall site traffic.
- Utilized React for rapid resolution of 100% of reported front-end bugs within a 48-hour time-frame, ensuring a timely software update release.

High School Tutoring Program

May 2020 – April 2022

Technical Tutor and Mentor

Butwal, Nepal

- Taught calculus, probability, and statistics, guiding students through problem-solving and real-world applications.
- Explained basics of key programming concepts like nested loops, recursion, and OOP in JavaScript, Python, and C, improving their understanding and confidence.
- Increased the mean GPA of 25 high school students from 2.8 to 3.4.

Projects

AI Assistant 'Jarvis' | Github | Python, OpenAI API

Sep 2024 - Present

- Developing a voice-activated AI assistant using Python, integrating speech recognition (Google Speech API), text-to-speech (gTTS and pyttsx3), and OpenAI's GPT-3.5-turbo model for natural language processing.
- Implementing 10+ features such as web browsing, music playback from a custom library, and live news fetching via the NewsAPI.
- Utilizing libraries like pygame for audio handling and requests for API communication, enhancing interactive and real-time responses.

Blackjack Game | Github | Python

Aug 2024 - Sep 2024

- Used Python to create a text-based version of Blackjack that included advanced options like time and player constraints which allows the player to play against an automated dealer.
- Implemented Python fundamentals such as conditionals, loops, functions, and wrote 100+ test cases (unit and integration cases) to cover key game features, ensuring accuracy and catching bugs early.

Calculator App | Github | Python, Tkinter

April 2024

- Developed a GUI-based calculator supporting 20+ basic and advanced operations, including exponentiation and square root.
- Added error handling and keyboard support for enhanced usability.
- Ensured responsive design and used Object Oriented Programming, achieving a modular and maintainable code.

Leadership

Byte Me (CS club)

May 2019 - April 2022

President

Butwal, Nepal

- Planned and organized awareness campaigns on cyber theft and phishing, leading Byte Me, the CS club, and educating 500+ students on best practices for online security.
- Coordinated three hackathons and four coding bootcamps, enhancing coding skills for over 150 participants.
- Boosted club membership by 30% through targeted outreach and engaging events.

Awards and Activities

Amazon-MSI-Engagement-Program, Opportunity Funds Program by EducationUSA/Fullbright Commission (Grantee), Ella Sheperd Moore Provost Scholarship, Academic Excellence Award (2021), National Mathematics Olympiad 2022 (Finalist), International Astronomical Olympiad/Scavenger Hunt 2023 (Ranked 7th), Hacktoberfest by Digital Ocean, Nasa Space Apps Challenge, VandyHacks XI, Fisk Computer Science Club, Fisk Robotics Club, Fisk Machine Learning Club