Ajay Pokharel

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EDUCATION

B.A, Computer Science and Mathematics – Fisk University, Nashville TN (2022 - 2025)

• G.P.A – 4.0 – Recipient of the Ella Shepherd Moore Provost Scholarship

TECH STACKS

 Languages: Python (Django, Django REST Framework, Numpy), JavaScript/TypeScript (React), Golang, C, Java for Android, ARM Assembly

Tools: Git/GitHub, Postman, Docker, Terminal

Other: Algorithms and Data Structures, System Design, Bash, Redux/Saga

SELECTED WORK EXPERIENCE

Software Engineering Intern – DataChat

May 2021 - Aug 2021

- Contributed 100% of the code to the company's big internal project SQL Query Manager which now enables 100+ DataChat
 customers to create, modify and execute SQL queries within the DataChat platform
- Proposed and modified 70% of the initial project design and architecture (created by senior engineers) through UI mockups and technical documentation. This allowed the project to utilize the company's new architecture and internal system, resulting in code reusability and consistent user experience
- Learned and utilized several open-source tools as well as the company's internal stacks to enable the full-stack functionality: Python for the backend, Golang for REST APIs, and React, Redux, and Sagas to create scalable frontend features

Frontend Developer Intern – Capturely

March 2021 - May 2021

- Led the prototype design (using Figma) for the Capturely mobile application that enables users to capture, edit, and profile professional headshots through a mobile camera
- Primary developer (wrote 90% of the code) for the prototype webpage integrating API endpoints to test the clickable features before transferring/filtering to the mobile client. Utilized React, Django REST, and other open-source front-end tools

Software Engineering Intern - Insight Workshop

Feb 2021 - July 2021

- Developed and implemented restful API powering the mobile client for <u>Dhukka</u>, using Python and Django Rest Framework
- Contributed 80% of the programming content, 90 coding problems with 5 test cases for each problem, 100+ MCQs, and performed unit-testing and documentation for the company's internal project <u>IW Bootcamp</u> now used by 100+ students
- Contributed around 30% of code in API integration and developing frontend page for <u>Dhukka's</u> Admin Portal, using frontend tools such as React with TypeScript and Bootstrap

Software Engineering Intern – Omviser

July 2020 - Jan 2021

- Assisted senior developers with front-end codes for Omviser web suite collaborating with other units such as UI/UX
- Conducted code reviews, proper documentation, and QA for 80% of the code written by senior developers

Research Assistant Intern – Human-Computer Interaction Institute of Nepal (HCIIN)

July 2019 - Sept 2020

- Analyzed and researched analogous websites to find content inspiration for frontend pages
- Created drafts for the company website by leveraging psychological concepts in story-telling and idea-pitching
- Assisted Ph.D. candidates in designing surveys, analyzing data, and translating findings into guides, in areas of HCI and AI

NON-WORK EXPERIENCE

Vice President - Wabash Computer Science Club

Sept 2021 - May 2022

- Conducted and supervised 5+ events on campus, including a Python Workshop with ~30 participants from all over the campus
- Developing lead at web development for Wabash CS Club website, using frontend libraries such as React and Bootstrap

Contestant – International Mathematics Olympiad (IMO)

July 2017

Led Nepal to its first-ever International Mathematics Olympiad in Rio de Janeiro, Brazil after being ranked as Top-4 from ~9,000 students in 5 national selection examinations

PASSION GITHUB PROJECTS AND CONTRIBUTION

Pokh, A Programming Language – (ongoing project) Creating a new programming language with syntax similar to Python + Go. Uses 'nearley.js' library to parse the Grammar to AST (Abstract Syntax Tree) and produces JavaScript code to execute

MovieCommender – A recommender backend system to take 5 movie inputs from users and recommend films based on an algorithm, using Django and Django Rest Framework, Web-scraping in Python with BeautifulSoup, and algorithmic design. See the source on GitHub

Getting Started with Python – An Open Source learning hub for beginner Python learners or people with non-cs background, specialized and structured with relevant and best lectures, notes, and problem sets (work in progress). See the source on GitHub

RELEVANT COURSES

- Full Stack Development: Insight Workshop Bootcamp
- College Courses: Introduction to Programming, Computer Architecture, Intro to Data Structures, Algorithm Design and Analysis, Operating System (running), Advanced Frontend (running)

OTHER INTERESTS

Writing (See on Medium), Volunteering, Leadership and Collaboration, EdTech