AYAM BANJADE

Github Linkedin Portfolio

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Bremen, Germany
30-11-2004

EDUCATION

B.Sc. in Computer Science | minor in Mathematics
(Sept. 2021 - Jun. 2024)

Constructor University Bremen

Relevant Courses:

- Software Engineering
- Databases and Web Services
- Algorithms and Data Structures
- Computer Networks
- Operating Systems
- Distributed Algorithms
- Secure and Dependable Systems

ADDITIONAL SKILLS

Rust | React | Flutter | TypeScript | CMake | Linux | Command-line Interface | Next.js | Agile Development | Shell Script | Machine Learning | Docker | XML | MS Office | Figma

LANGUAGES

English: Native / Bilingual (C2)
German: Limited working proficiency (A2)
Hindi: Business fluent
Nepali: Native / Bilingual (C2)

EXPERIENCE

Teaching Assistant at Constructor University Bremen

Numerical Methods — Feb. 2023 - Jun. 2023

- Created and solved challenging problems and helped 100+ students with numerical methods for root finding, interpolation, approximation, numerical differentiation / integration / differential equations, and their implementations in **Python**
- Streamlined the grading process by developing Python scripts transforming and simplifying complex CSV files

Programming in C/C++ — Sept. 2022 - Dec. 2022

- Debugged and validated **C/C++** code, providing comprehensive tutorials to 200+ students on programming concepts, including pointers, object-oriented programming, dynamic memory allocation, data structures, templates, macros, header files, and makefiles

Introduction to Computer Science — Sept. 2022 - Dec. 2022

- Coordinated and led tutorials addressing students' inquiries in functional programming (**Haskell**), assembly programming, computer science foundations, discrete mathematics, Boolean algebra, Hoare's logic, and digital circuit design

LEADERSHIP ACTIVITIES

Member of CS Hiring Commitee — Jun. 2023 - Present

Constructor University Bremen

- Serving as the representative for the Computer Science student body in the hiring process for faculty, actively casting votes and advocating for the inclusion of student interests

Member of Makers and Coders — Aug. 2019 - May 2021

Ullens School (IBDP / High School)

- Coordinated seminars with esteemed STEM experts and conducted workshops for underprivileged students in Nepal while managing fundraising events to secure necessary equipment for schools and the club

PROJECTS

Rippit

- Developed a frontend and backend of a forum website collaboratively using **VCS (git)** and integrated search suggestions and map functionality using jQuery and Leaflet library
- Implemented backend using **PHP** and **MySQL** to connect the website and **MongoDB** database server with query-dependent access rights using sanitized SQL queries

Bug World

- Collaborated in agile sprints to build and improve different code bases for a full-stack simulation game in **JavaScript** and **HTML/CSS**
- Engineered and implemented a parser, assembler, simulator, and GUI using OOP principles and created automated test cases to ensure robustness and functionality
- Authored and maintained detailed technical documentation and comprehensive specifications to ensure effective project communication and development

Room Booking System

- Designed and built a **Java**-based, user-friendly, and intuitive CLI room booking system with file I/O, dynamic matching, and custom data structures for efficient data management

Spam Email Extractor

- Built a C++ program to implement data extraction techniques to retrieve 57 relevant attributes from UCI's Spambase Data Set for effective spam email detection

Stochastic Methods Lab

- Developed stochastic models for financial mathematics using Python libraries (`matplotlib`, `NumPy`, `pandas`, `SciPy`) for CSV handling and complex dataset analysis and visualization

Mars Photo App

- Created a **Kotlin** app displaying Mars' surface photos taken by NASA rovers using Retrofit for REST requests, Moshi for JSON deserialization, and Coil for image loading via URLs
- Leveraged coroutines, ViewModel, LiveData, and Data Binding with binding adapters to enhance performance and functionality

Bremen, Germany, 2023-06-26 Ayam