

AMAN KUMAR

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github.com/alpha74

alpha74.github.io/webcv

EXPERIENCE

Software Engineering Intern

The Solar Labs

May 2019 – Nov 2019 New Delhi, India

PVSyst Automation with APIs

- Developed Automation scripts for generating Solar Output reports.
- Implemented scripts for error handling, uploading to AWS s3 and responding with links.
- Created REST APIs for controlling the automation scripts in Master-Slave config of Server and Workers modules
- Python, REST, AWS, Flask, pyautogui, Sikuli, MySQL

Parallel programming on Shading Engine

- Optimized Solar Access generation code using C++ and CUDA by using concepts of parallel processing
- Converted numpy intensive Python scripts to C++ by defining appropriate data structures for matrix operations
- Used C++ json parsers like RapidJSON and nlohmann for manipulating json data
- C++, CUDA NVCC, Python, REST

Simulating Google Map API

- Given coordinates and year range, API provides access to historic satellite imagery by automating Google Earth.
- Operations like Image naming, Generating image data, Compression and Uploading are performed automatically.
- Google Earth, GCP, AWS, Python, REST, RabbitMQ

EDUCATION

Bachelor of Technology, Computer Science

Indian Institute of Information Technology, Nagpur

June 2016 – June 2020

Senior Secondary

Lucknow Public School : 91.8%

June 2014 – May 2015

High School

Lucknow Public School : CGPA 9.6

June 2012 – May 2013

PUBLICATIONS

- Aman Kumar, Braj Kishor, Sovan Samanta. A study on relation between mathematics and music. Cambridge Books

HOBBIES

- Books, PC games, Basketball, Bird Watching, 3D graphics

SKILLS

- C, C++, Python, PHP, Java, NVCC CUDA
- HTML, CSS, Javascript, Bootstrap, SQL
- Django, Flask, LAMPP
- MySQL, MongoDB, RabbitMQ, Sikuli
- Linux, Windows
- Blender, Godot

PROJECTS

ContentBucket

- Created a content and media sharing Web App over LAN.
- Users can upload/download contents like PDF books, Notes, ZIP files needed for any course, or interests.
- HTML, CSS, PHP, MySQL, XAMPP, Bootstrap (2019-20)

Library Management Application

- Created a Web Application for day-to-day Library operations including Student/Admin accounts, Issue History, Book Review etc.
- PHP, MySQL, JS, HTML, CSS, XAMPP (2018)

Implementing Kalman Filters

- Implemented K.F to denoise the input to KNN classifier model in Bayesian learning.
- Python (2017)

Swasthya App Backend

- Developed database services and APIs for Android application which provided a Disease index of a state.
- PHP, MySQL, HTML, CSS, XAMPP (2017)

Student Record System

- Implemented a record keeping system for students. Concepts used: Data Structures, Linked Lists, Dynamic Memory Allocation.
- C, C++ (2016)

ACHIEVEMENTS

- 100daysOfCode streak - InterviewBit in 2020
- Bronze medal in Inter-IIIT Basketball 2020
- ContentBucket project got deployed on College LAN at IIIT Nagpur in 2019
- Chief Technical Coordinator, CSE 2018-19
- Library Manager project got deployed on College LAN at IIIT Nagpur in 2018
- Volunteer in CSNT-IEEE 2017 conference at IIIT Nagpur
- 1st prize in Institute Gathering Quiz 2017 at IIIT Nagpur