Anand Kumar

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○ https://github.com/AnandKumarRajpal   📍 Karachi, Pakistan

🎓 EDUCATION

BS in Computer Science, *Habib University*   2018 – Present
Karachi, Pakistan

Intermediate, *D.J. Sindh Government Science College*   2016 – 2018
Karachi, Pakistan

Matriculation, *St. Patrick's High School*   2016
Karachi, Pakistan

💼 PROFESSIONAL EXPERIENCE

IT Consultant, *Saaya Pakistan*   Aug 2020 – Present
- Voluntarily maintain Saaya's website including optimizing it, updating the content, and continuously adding required features.   Karachi, Pakistan

Web Developer, *Appick*   Aug 2021 – Oct 2021
- Developed multiple websites using **VueJS**   Karachi, Pakistan
- Developed the frontend of the projects using the **Bootstrap-Vue**
- Integrated frontend with backend using **Axios**
- Implemented state management using **Vuex**

SQA Engineering Intern, *Securiti.ai*   Jun 2021 – Aug 2021
- **Python3 Comparison Program:**   Karachi, Pakistan
  - The program scrapes the HTML source code and captures the screenshot of the daily build of their web portal and public website.
  - The program then compares and points out the differences in the various deployed builds.
- **Portal Development:**
  - Developed a full-stack solution (portal) to present the differences pointed out by the **Python3** program.
  - The frontend was implemented using **VueJS** and the backend used **PHP**.

Web Development Intern, *FinPocket*   Jan 2021 – Feb 2021
- Developed the front-end of their web app using **VueJS**   Karachi, Pakistan

Assistant Instructor, *Circle Pakistan*   Jun 2020 – Oct 2020
- Helped design daily class content   Karachi, Pakistan
- Research on topics for daily class content
- Coordinate with Lead Instructor for assignments, projects, and quizzes
- Assist with assignment and project correction
- Assist/Conduct live classes
- Help the team with the admission process by interviewing and screening of students.

Web Developer, *Saaya Pakistan*   Jun 2020 – Aug 2020
- Voluntarily developed the website for Saaya Pakistan NGO using **WordPress**.   Karachi, Pakistan
- Link: https://saayapk.org ↗

Web Assistant, *Habib University*   Dec 2019 – Feb 2020
- Set up a **Linux**-based web server for the instructors, to provide them with a web space where they can upload their lectures, portfolios, projects, etc.   Karachi, Pakistan
- Maintained the server, until proper testing was done.

Teaching Assistant & Peer Tutor, *Habib University*   Karachi, Pakistan
- Courses:
  - Computer Architecture (Spring 2022), Computer Architecture (Spring 2021), Data Structures & Algorithms (Spring 2020), Peer Tutor for C++ (Summer 2020), Peer Tutor for C++ (Winter 2020)
- Assisted students during labs, and helped them to solve their queries on assignments, labs, and lectures.

🧠 TECHNICAL SKILLS

Programming Languages:
Python3, C++, JavaScript, PHP

Frontend Skills:
HTML, CSS, Vue.JS, Bootstrap, Vuetify

Application Development using Flutter

Databases Management:
MS SQL Server, MySQL Server, MongoDB

IDE's familiar with:
PyCharm, VS Code, Apache NetBeans, Visual Studio

LaTeX writing

Systems:
Windows, Linux/Unix, Mac OS X

WordPress Development

📁 PROJECTS

Urdu Speech Emotion Recognition Using Voice (Python3), *CS 351 Artificial Intelligence*
- Extracted audio features such as MFCCs, Chromagram, and Mel-spectrogram from Urdu audio files.
- Built an Artificial Neural Network using **Tensorflow** library in **Python3**, to classify Human Speech Emotion based on their voice in the Urdu Language.

Flight Simulator (C++), *CS 440 Computer Graphics*
- Implemented a flight simulator using the **WebGL** (Web Graphics Library) in **C++** rendered on a GPU.

Ray Tracer (C++), *CS 440 Computer Graphics*
- Built a ray tracer in **C++** with several features including ray casting, shading, different light sources, and Bounding Volume Hierarchy acceleration structure
- Rendered varying resolution scenes on the ray tracer
- Compared the rendering times with and without the acceleration structure

HU Evaluation System (Website), *CS 353 Software Engineering*
- Designed and developed a website using **VueJS** for frontend and **Django** for the backend
- The website enables students to evaluate instructors of Habib University and gives students clear reviews about the instructors. The reviews are available to the entire student body and the instructors

Eco Planet Game (C++), *CS 224 Object Oriented Programming*
- The game was developed using **C++** and **SDL** library
- The game aims to teach the effects of polluting the planet Earth

HU Course Schedule Generator (Python3), *CS 102 Data Structures & Algorithms*
- The program generates all the possible weekly schedules of the selected courses.
- The back-end uses an algorithm to generate the possibilities and the front-end was developed using **Tkinter** library.

Digital E-Voting System, *EE/CS 172/130 Digital Logic Design*
- Designed a digital voting system using **FPGA**, logic gates, led display, 7-segment display and many more components.
- The front-end was developed in **Python3** using the Tkinter library.