## Avinash Kumar

# Indian Institute of Technology Goa

Fourth Year Undergraduate, Computer Science and Engineering Add: H.No.: 20, Gali No. 1, West Rajiv Nagar, Gurgaon., Haryana

e-mail: avinash.kumar.18001@iitgoa.ac.in

Mobile: +91 8527232580

LinkedIn: www.linkedin.com/in/avinash-kumar-73a2931b5/

#### **Education**

BTech, Computer Science and Engineering: Indian Institute of Technology Goa CGPA: 6.42/10 2018 - PRESENT Class 12, Bihar Secondary Education Board, Laloo Mandal College 2017 - 2018 Aggregate:73 %

#### **Projects**

**ELMS System:** [Aug.2021-Present]

- Technology: React.js, Django, WebSockets, SQLite, MaterialUI, JWT
- Developing a Web Application for Leave Management for an organization
- ELMS frontend is built on React Library and Material UI
- This system can automate the acceptance and processing of leave applications
- Used WebSockets and Django Channels for Live Updates between Dashboards.

**DSA Visualization:** [March. 2021 - May 2021]

- Technology: React.js, JSX, D3.js
- Developing a platform where we can visualize the concepts used by complex algorithms
- Link to the webapp: link

#### 2D Platform based Game:

[Nov. 2020-Dec 2020] Technology: HTML, CSS, Javascript

- Developed a Platform based game using vanilla Javascript, and HTML, CSS.
- Deployed and Hosted on web using Netlify here

#### **Implemented Clustering Algorithms:**

[July 2020-Aug 2020] Group Project of team size 3 including me, led by me, guided by Dr. Satyanath Bhat

- Implemented DBSCAN, HIERARCHICAL, KMEANS Clustering Algorithms from scratch
- Also included visualization of these algorithms.
- Link to the Github Repo: link

## **Human Activity Recognition:**

- Technology: Machine Learning, Python (Keras, Pandas, Numpy)
- Classification of videos, Dataset used is 20BN-something-something v2
- At first, frames were extracted from the video dataset and then it was splitted into Training, Testing, and Validation sets. After this they are fetched into the model.
- The model used consisted of Time Distributed ResNet50, Time Distributed Flatten, and then on top of that LSTM, Dense, Dropout, Dense layers were applied.

### **Skills**

**Programming Skills:** C, C++, Python, Java (Little Knowledge)

Web Development Skills: HTML, CSS, JavaScript, BootStrap, React, Redux, Django

**Electrical Software Skills:** VHDL

**Operating Systems:** Windows, Linux

IDE: Visual Studio Code, Emacs, Notepad++

**Relevant Coursework:** Data Structures and Algorithms, Software Systems, Discrete Structures, Computer Networks, Automata Theory, Computer

Architecture, Operating Systems, Artificial Intelligence, Foundations in Machine Learning

## Achievements

Got third place in Coding Event (POKETHON)

CODECHEF International Coding Marathon 2021 (Global Rank 182)

[June.2020-July 2020]