Ashutosh Karanam

karanamashutosh@gmail.com | www.linkedin.com/in/karanamashutosh | github.com/KarAshutosh

Education

Birla Institute of Technology and Science, Pilani, Goa — Nov'20- Present
B.E. Electronics and Communication Engineering — *CGPA:6.38/10*

Narayana Co-Kaveri Bhavan, Bangalore — 2018-2020
Class XII — *CBSE: 94.0/100*

Deens Academy, Bangalore — 2012-2018
Class X — *CBSE: 85.0/100*

About Birla Institute of Technology and Science, Pilani, Goa

- Nurtured students who created 11 out of India's 70+ unicorn start-ups (as of 2021)
- One of India's 12 colleges with the "Institute of Eminence" (IOE) title
- Extremely competitive with acceptance rate of 1.47%
- Prominent BITSian start-ups include Postman, BigBasket, Swiggy, MPL etc.

Projects

Wearable Display Glasses

Personal Project

- Creating glasses that displays text and basic graphics using principles of reflection

Lottery Smart Contract

Personal Project

- Uses solidity to create a smart contract to accept tokens from users and having a lucky user winning the tokens after a fee to the owner of the contract. Also has an additional feature where users win only after certain time intervals
- Link: https://github.com/KarAshutosh/DeFiLottery

Virtual Painter

Personal Project

- Using real time webcam data, to track an object of a certain colour, to draw using OpenCV and NumPy
- Tried to recreate the experience of a mouse using the object (in this case a highlighter) as a pointer and keyboard keys as the left and right click buttons. Allows drawing and erasing lines and shows location of mouse pointer even when not drawing
- Link: https://github.com/KarAshutosh/Virtual_Painter

Arduino LCD Clock

Personal Project

- Uses Arduino Uno, LCD display and keypad, with features of time, alarm, timer and stopwatch
- Link: https://github.com/KarAshutosh/arduino_clock_timer_stopwatch_using_lcd_and_keypad

Other Projects

- **Arduino obstacle avoiding robot:** 4-wheeled robot made using Arduino and ultrasonic sensors to avoid obstacles
- **Arduino Radar:** Detects objects location and distance using ultrasonic sensor, servo motor and Arduino Uno
- **Front End Website:** made a front-end website using HTML/CSS
- **Creating a token (blockchain)**: Creating an ERC20 token on Ethereum blockchain
- **Distributer:** Coding a smart contract to send funds in regular intervals with editable amount and intervals
- Using chain link to call functions on a previously made smart contract

Technical Skills

Programming Languages: Python, C/C++, HTML/CSS, JavaScript, Rust
Libraries: NumPy, Pandas, Mathplotlib, OpenCV, Seaborn, Cufflinks, ploty, Scikit-Learn, Node.js, web3.js, Express.js
Modelling: AutoCAD, Proteus
Other skills: Solidity (blockchain), Logisim, MATLAB
Spoken Languages: English, Hindi, Telugu, German (A1 level)

Coursework

Electronics and Communication Engineering: Electrical Machines, Electro Magnetic Theory, Electrical Devices, Digital Design, Electrical Sciences, Microelectronics, Control Systems, Signals and Systems, Microprocessors

Experience

- **Intern at Pyrotech Electronics:** Research and design flat packing of sheet metal panels/ enclosures (bolted design)
- **Intern at MakeMyIdea (planet.finance):** Worked as a smart contract developer. Worked on creating smart contracts and interacting with already existing smart contracts

Achievements

Award - ASSET Talent Scholar Gold (For Students scoring 95-99 percentile in ASSET Talent Scholar Exam)

Positions of responsibility

Project lead- Electronics and Robotics Club. Building "SmartGlasses". Project to start from January 2022

Certificates

The Complete Solidity Course (Udemy)- Learnt about Solidity fundamentals, EVM, debugging, deploying, compiling with Remix IDE, using abstract contracts and documenting thoughts. Link: https://www.ude.my/UC-7fee07ab-502f-48b4-8ec4-2509ecbda7ef/

Blockchain A-Z (Udemy)- Learnt about the theory behind Blockchain, Cryptocurrency Transactions and Smart Contracts. Also coded a basic blockchain using C++ and coded a smart contract in Solidity. Link: https://ude.me/UC-0292a3ff-a0d3-4739-8541-93159fde1a53

Python for Data Science and Machine Learning (Udemy)- Learnt how to use the python libraries NumPy, Pandas, Mathplotlib, Seaborn, Plotly and SciKit-Learn along with Linear Regression, Logistic Regression, KNN, SVM, Random Forests, Decision Trees, Natural Language processing, Neural networks and more. Link: https://ude.my/UC-d98cc152-93c3-44ac-ae75-f58315494d7c

Communities

DoSM - Member of the Department of Sponsorship and Marketing, BITS Goa

ARC - Member of the Alumni Relations Cell, BITS Goa.
CEL - Member of Centre of Entrepreneurship and Leadership, BITS Goa.
ERC - Member of Electronics and Robotics Club, BITS Goa