UJJWEL BALWAL

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EXPERIENCE

Summer Intern

LeanKloud Solutions Pvt Ltd

April 2020 – June 2020

- Designed and implemented sanity checks for new Amazon AWS and MS Azure customers
- Automated sanity checks and metric collection using Boto3 and AWS Lambda
- Automated reporting of Lambda results using Jira python API

Winter Intern

Admatic Solutions

October 2019 – December 2019

- Created a gesture recognition ball using GRT and ESP32
- Designed computer vision applications for teaching aids
- Implemented OpenAI-Gym based agent to play air-hockey

EDUCATION

Chennai, Tamil Nadu, IN

SSN College of Engineering

2017 – 2021 (Tentative)

- Persuing B.E. in Computer Science and Engineering
 - 8.3 / 10 CGPA (5 / 8 semesters) Anna University
 - Member of Competitive Coding Club, Google App Development Club
 - Representative in The Class Committee Group

Udhampur, Jammu Kashmir, IN

Kendriya Vidyalaya No. 1

2005 - 2017

- 89.4 / 100% (class 12th) Central Board of Secondary Education
- Physics, Chemistry, Mathematics, Computer Science
- 10 / 10 CGPA (class 10th) Central Board of Secondary Education

TECHNICAL SKILLS

Programming

• Python • C++ • C • Java • HTML • SQL • Assembly • LATEX•

Hardware

• ESP32 • CC3D • Arduino •

Platforms

• AWS • ESP-IDF • Android • MySQL • OpenPilot • Arduino IDE •

WEEKEND PROJECTS

- Neural Network Visualizer A simple neural network visualizing web application
 - Using Streamlit, Keras and Flask
- Image Denoising Autoencoder based denoising of a given grainy image
- Image Upscaler Image upscaling using autoencoders
- Synthetic Image Generator Generate artificial images similar to training images, using DCGANs

ADDITIONAL COURSES AND CERTIFICATION

• Deep Learning Specialization: (ongoing) deeplearning.ai

Algorithm Design: Penn MOOC
Machine Learning: Stanford MOOC
Data Science Methodology: IBM
AI on the Edge: (introductory) Intel

• Spanish Level A1 equivalent: InAWord Chennai

Position of Responsibility

Organizer Invente 2k19 SSN Annual Tech Fest

• Problem setter for Data Structures and Algorithms path of Technical Quiz.

Education Volunteer Defence Expo 2k18 International Exhibition

• Single point of contact in American Pavilion.

School Captain K.V. No. 1, Udhampur Student Body

• Elected head of the Student Body.

PUBLICATIONS

- **Deep Learning based TB Severity Prediction** Detecting severity of Tuberculosis (TB) from Computer Tomography (CT) images.
 - Working notes accepted for publication. In: CLEF 2020 Conference, Thessaloniki, Greece, September 2020
- Fossil Fuel Emission Prediction Predicted the future CO2 emission in various countries based on historic trends; using various machine learning techniques on the CDIAC dataset, Oak Ridge National Laboratory
 - Paper presentation. In: International Conference on Recent Trends in Clean Technologies for Sustainable Environment (CTSE), September 2019
- Bot Assisted Software Development Concept of a system to structure and catalog program code snippets, such that a bot could read that catalog, understand the working and behaviour of a code block, and fetch it when the programmer needs related or same functionality
 - Published in *IJITEE* (Scopus Indexed). ISSN: 2278-3075, Volume-8 Issue-6S, April 2019

AWARDS AND ACHIEVEMENTS

- Rank 8 ImageClef 2020 Tuberculosis CT Report: Automated CT-scans report generation (out of 65 research teams)
- Rank 42 State level engineering entrance exam JK-CET 2017 (out of 10,000 candidates)
- Scholarship Recipient Full waiver for Bachelors Degree from All India Council of Technical Education, Govt of India
- Certificate of Honor: National Winner of Gurutsav 2014 from Dept of Human Resource Development, Govt of India
- Certificate of Appreciation: Part of team representing Jammu Region in the finals of National Science Congress from Dept of Science, Govt of India

EXTRA CURRICULAR ACTIVITIES

- National Service Scheme Volunteer
- National Cadet Corps former Cadet with A-Certificate
- Bharat Scouts and Guides former Scout with RajyaPuraskar, served as The Senior Patrol Leader