

Ekansh Agrawal

| Eagrawa@purdue.com | Ekanshcs@gmail.com | US Citizen -West Lafayette, IN | 726-210-7348 |

EDUCATION

Purdue University

Bachelor of Science in Computer Science

West Lafayette, IN

Graduating 2028

Shiv Nadar School

AISSCE High school diploma Computer Science, Math, Physics

Noida, India

Final Grade: 96%

PROFESSIONAL EXPERIENCE

Project Developer – Stratolaunch

Aug 2024 - Present

Purdue Datamine Corporate Partners

- Collaborating with Stratolaunch to develop a web tool to analyze differences in flight and simulation data
- Designed custom regression and forest models to predict performance over 8+ parameters from the Talon-P dataset
- Hosted web app using Streamlit and Fast-API presenting Matlab Surface plots to visualize results

Software Engineering Intern

June 2023 – June 2023

Trademo

- Developed a web scraping tool improving product info collection by 10% using Selenium and Pandas in Python
- Tested scraping efficiency using ~20 datasets from online libraries, presidential elections and weather forecasts
- Presented the data through an interactive user interface using PyQt5 and Matplotlib

RESEARCH

Understanding AI's Energy Consumption

Apr 2023 – Sep 2023

- Researched environmental impact by 7 popular AI models Including GPT-3, BERT, T2T and PaLM
- Discussed 6 current tools and initiatives to improve energy efficiency like Zeus and GAISSA
- Published paper in international research journal – Questioz

KEY PROJECTS

Autonomous Rescue Robot

Sep 2022 – March 2024

- Built a rescue robot using Lego EV3 and Arduino to navigate through randomly generated terrain in under 8 mins and rescue live and unlive victims from a simulated disaster setting
- Trained a custom neural network on the FOMO architecture using a dataset of 900 synthetic images (96 F1 Score)
- Utilized libraries such as OpenCV and TensorFlow to perform real-time video processing at 60 FPS
- Won Robocup International championship against 18 participating countries

Life Captions – Smart Glasses

Jan 2023 – Oct 2023

- Invented an AR attachment for glasses providing live audio speech transcription for hearing impaired
- Employed Faster-Whisper for STT and MQTT protocol for transcribing and displaying text (<1sec delay)
- Donated 10 devices to hearing impaired and evaluated with 150+ patients, teaming up with the I Can Hear Foundation
- Awarded first prize in Sigma Xi: high school research & tech conference – Tech Innovation

Voice For Voiceless – Dog Feeder

Jan 2021 – Jan 2023

- Created an autonomous Dog feeder addressing high malnutrition rates in stray dogs
- Implemented a dog detection/classification model on a RPI –4 controlling a motorized food dispenser (93% accuracy)
- Installed the device in 20 residential societies and 5 dog shelters providing meals to over 250 recorded dogs
- Granted the Astitva Samman – betterment of society award by the PHD Chamber of Commerce and Industry

TECHNICAL SKILLS

Programming Languages: Python, Java, C++, SQL, R

Libraries: OpenCV, Neural Networks, TensorFlow, Selenium, Matplotlib, Steamlit, Fast-API

Developer Tools: Git, VS Code, PyCharm, IntelliJ, WSL, Putty

Design Tools: Blender, Canva, Photoshop, Autodesk Fusion 360, DaVinci Resolve, UE5