AKSHAT SHRIVASTAVA

ACADEMIC PROFILE			
Degree/Certificate	Institution	Percentage/CGPA	Year
B-Tech	Mechanical Engineering IIT (BHU), Varanasi	7.85	2026
Akshat Shrivastava (XII)	DPS Rewari, Haryana	91.60	2022
Akshat Shrivastava (X)	DPS Rewari, Haryana	96.80	2020

SKILLS

- Languages: C++, Python, C, Rust, Pandas, Armadillo, Numpy, OpenCV, SQL
- Tools: MATLAB, Simulink, CAD, Pytorch, Tensorflow, Gazebo, ROS, Ardupilot, EasyEDA, Arduino, WasmEdge

INTERNSHIP/TRAINING

Computational Intelligence Lab , IISC Bangalore

May 2024 - July 2024

Research intern

- Exposure: ROS, Ardupilot, Gazebo, Linux, UAV algorithms
- Processed data of depth camera and radar
- Created algorithm for terrain following for drone system using depth data
- · Sensor fusion

CNCF - The Linux Foundation Mentee

May 2024 - July 2024

Mentee at CNCF - WasmEdge: Finetune LLM models for Rust coding assistance (2024 Term 2)

- Exposure: LLM, WasmEdge, Llama, LlamaEdge
- · Created Datasets for fine tuning of Rust coding assistant
- Fine tuned multiple LLM's with varying parameters comparing their performance
- Working on integrating fine tuned LLM's in WasmEdge and flows network backend

PROJECTS

Agricultural theme manual and autonomous Bot

Feb 2024- April 2024

Team Robocon 2024, IIT BHU

- Worked on various design and hardware problems and worked on analysis of material and efficiency of various mechanisms
- Implemented pneumatic and spring loaded contraptions
- Worked on data filtration and application of kalman filter on IMU data
- Documentation | Videos

Built 6 d.o.f mechanism for package management in industrial environment

Aug 2023- Nov 2023

consisted of core XY mechanism with robotic arm

- Made custom spring back mechanism
- Created grbl functions from scratch in arduino
- Used YOLO models to detect the box
- <u>Documentation</u> | <u>Video</u>

Built Inception V1 model from scrath in pytorch for use in surveillance

Dec 2023- Jan 2024

Inception V1 also known as googlenet is a CNN model which is 27 layers deep

- Shows high performance gain on CNN's
- Efficient utilisation of computing resource with minimal increase in computation load for the high-performance output of an Inception network.
- Implementation: Google Collab

POSITION OF RESPONSIBILITY

- Event Executive, Technex: Served as Event Executive for Robonex events of Technex and made sure that event goes smoothly and contributed in arena making for micro mouse event(March 2024)
- MazeX mentor: Mentored new entrants to make their first line following maze solving robot (September 2023 October 2023)
- Event Executive, E Summit'24: Served as event executive at e summit of IIT BHU 2024 and handled operations and ensured smooth functioning of events(January 2024 February 2024)

- INI Associate, E-Cell, IIT BHU: As an associate in the Innovation and Incubation (INI) vertical of E Cell I Spearheaded initiatives at on-campus incubators (CiscoThingQbator, R-ABI, NCL IITBHU) to foster student entrepreneurship and innovation. Managed the recording and maintenance of research and entrepreneurship reports submitted to the Ministry of Education, directly enhancing the institute's NIRF ranking. Conceptualized and launched the First-Ever Postgraduate Entrepreneurship Program (IPEP), emphasizing industry commercialization of institutional research. (2023 ongoing)
- Core member, Robotics Club IIT BHU: Served as core member of the Robotics Club and was a part of multiple projects and knowledge transfer sessions(2023 ongoing)
- Y20 Volunteer: Worked as volunteer at Y20 summit held at Varanasi(August 2023)
- PR Team, Parliament: Served in PR team of Parliament of IIT BHU and assisted in making of posts of various events(2023 2024)

HONOURS AND ACHIEVEMENTS

- KVPY SX Scholar: Received prestigious KVPY scholarship with All India Rank 1745 from government of India
- IOQM Merit Certificate: Secured merit certificate in IOQM 2021-22, previously known as Regional Mathematics Olympiad(RMO)
- HSCTSS Scholar: Received prestigious HSCTSS scholarship, state level of NTSE in Haryana
- Flipkart Grid: Secured All India Rank 30 in Flipkart Grid robotics problem statement
- Regionalist, HULT Prize: Made it to Mumbai Regionals of HULT Prize 2023.
- Cisco ThingQbator: Reached to startup stage(top 30) teams in Cisco ThingQbator cohort 6
- StartupIndia SmartIdeathon: Finalist in hackathon held by startupindia, Top 8 nationally
- Bizarro SARC Tank: Secured 2nd position in Inter IIT pitching competition held by SARC IIT Bombay

EXTRA-CURRICULAR ACTIVITIES

- Aagman Group dance: Secured 1st position in interferers Group Dance competition
- Tesseract: Secured 3ed position is Tesseract, Treasure Hunt event conducted at E-Summit'23 at IIT BHU

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