

RISHAV BHARDWAJ

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Education

University of Waterloo

Master of Science in Systems Design Engineering and Vision Science
GPA: 93/100

Jan 2023 – Present
Waterloo, ON, Canada

Cambridge Institute of Technology

Bachelor of Engineering in Computer Science
CGPA: 8.38/10.0 (Class Rank: 6/183)

Aug 2016 – Aug 2020
Bengaluru, KA, India

Publications

OW-SLR: Overlapping Windows on Semi-local Region for Image Super-Resolution

Rishav Bhardwaj, Vasudevan Lakshminarayan, J J Balaji
Under Review

[Link](#)

Deep Cross of Intra and Inter Modalities for Visual Question Answering

Rishav Bhardwaj

3rd International Conference on Integrated Intelligent Computing Communication and Security (ICIIC 2021)

[Link](#)

Experience

University of Waterloo

Graduate Research Assistant

- Learned the real meaning of research.
- Actively staying abreast of the latest developments in the field of 3D dynamic scenes through continuous review of research papers and examination of relevant code.
- Explored the principles of super-resolution and identified various instances where its effectiveness was limited through hands-on implementation.

Jan 2023 – Present

Waterloo, ON, Canada

Cloudphysician Healthcare

Computer Vision Engineer

- Learned how to develop an **end-to-end** computer vision product from scratch and write **production quality** code.
- Implementing, training and benchmarking of **Siamese Network**, **object detection models** and **U-Net**.
- Reading and implementing research papers to find the **optimal** solution to a given problem.

Mar 2021 – Nov 2022

Bengaluru, KA, India

Uncanny Vision Pvt Ltd

Computer Vision Engineer

- Sorting and processing **large volume** of **unstructured** image and video data.
- Training and benchmarking various **pose-estimation** models.

Jan 2020 – Mar 2021

Bengaluru, KA, India

Projects

Project Netra | Python, OpenCV, Pytorch

- Developed the entire product from **scratch** to extract vitals like heart rate, blood pressure, respiration rate, etc. from **different** cardiac monitors having **infinite layouts** under bad lighting conditions.
- Previously, this collection of vitals was done manually by nurses every 30 minutes for each patient.
- Saved **736 hours** of nurses' time across 19 hospitals in November 2022 all over India.

Cloudphysician Healthcare

Weapon Detection | Python, OpenCV, Tensorflow

- AlphaPose multi-person pose estimator helps to give the hand and elbow coordinates.
- Euclidean distance between the hand and the elbow is calculated.
- Squared-shaped hand image is cropped where distance between centre point (hand coordinate) and corners is two-third of the above Euclidean distance.

Uncanny Vision Pvt Ltd

Academic Achievements

- 6th semester Topper of the Computer Science Department.
- Highest marks scored in Mathematics across all departments of the college in the 2nd year.
- Best Final Year Project in the Computer Science Department.

Technical Skills

CV-DL: PyTorch, Tensorflow, OpenCV, 3D Reconstruction, Super Resolution, Object Detection, Segmentation, GANs

Programming Languages: Python, Java, C++, C, LaTeX, Shell / Bash scripting

Technology Stack: Linux, Docker, OpenVino, Git