ABHIJAN WASTI

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COMPUTER VISION ENGINEER

Imaging scientist with an interest in image processing and computer vision

Education

Rochester Institute of Technology - *Full Scholarship* **Rochester, NY**
MS in Imaging Science *(Advisor: Gabriel Diaz)* **Present**

- Deep Learning, Image Processing and Computer Vision
  Advanced Eye Tracking, The Human Visual System
  Fourier Methods for Imaging, Procedural Shading

Institute of Engineering, Tribhuvan University - *Full Scholarship* **Kathmandu, Nepal**
BE in Electronics and Communication Engineering **2019**

- Image Processing and Pattern Recognition, Artificial Intelligence, Probability and Statistics, Big Data
- Capstone Project: Aerial View-Based Guidance System
  - Introduced a semi-autonomous two-vehicle navigation system capable of guiding the ground vehicle with dynamic feed from the aerial vehicle

Online Courses: Machine Learning, Computer Vision, Neural Network and Deep Learning, Improving Deep Neural Networks

Work Experience

Graduate Research Assistant – *Rochester Institute of Technology* **Aug 2021 – Current**

- Improving current eye tracking technology for better gaze estimation (funded my Meta Oculus)
- Completed responsibilities as TA for “Imaging Science Fundamentals” with an 87% pass rate

Machine Learning Intern – *FuseMachines Inc.* **May 2021 – Aug 2021**

- Reviewed and implemented techniques in exploratory data analysis and data visualization
- Worked with libraries such as numpy, pandas, and matplotlib for statistical analysis and modeling
- Reviewed and implemented machine learning pipeline and deep learning architecture
- Collaborated with a team over git and google colab
- Created APIs to deploy ML models with tools such as fastapi, streamit and docker

Embedded Systems Developer – *Machineer Technology Pvt. Ltd.* **Apr 2021 – Aug 2021**

- Designed and implemented a transformer monitoring system for the urban electricity grid
- Developed a low-cost GPS-less technique for geolocation suitable for a business district

Skills

Programming Languages: Python, C, C++, MATLAB, Javascript, HTML, CSS
Libraries: OpenCV, numpy, pandas, matplotlib, sklearn, PyTorch
Software: Blender, Pupil Core

Other Projects (Github)

Halftoner - created a python library that supports halftoning, dithering and removal of halftoning in images
Sentiment Classifier - trained and deployed a natural language sentiment analyzer
Colora - built a prototype application that uses image processing to create vector-style edits
Several Audio-Visual Experiences - created multiple projects combining 3D modeling, lighting and shading, rendering, sound design, and compositing using software such as Blender, Adobe After Effects, Adobe Premiere Pro, DaVinci Resolve, etc. (link here)

Organizations and Scholarships

AWARE-AI NSF Research Traineeship (NRT) **2022 - Current**
Board Member - *Rotaract Club of Kathmandu* **2018 - 2021**

- Collaborated with over 120 clubs from all over the world to publish 22 bulletins as chief editor

President - *Robotics and Automation Center* **2017 - 2018**

- Led the club and managed funds worth $3000, organized training and competitions for 30+ students