# RAMKRISHNA ACHARYA

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## Experience

**Associate Data Scientist Engineer** Aug 2021 – Aug 2022
*Extensodata Pvt. Ltd.* *Kathmandu, Nepal*

- Done data analysis on financial domain data to find best insights.
- Built an Intelligence System to visualize performance of loans for stake holders to take timely decisions.
- Technologies Used: Python, MySQL, Pentaho, Apache Airflow, Apache Superset, Git

**Junior Machine Learning Engineer** Jan 2021 – May 2021
*Ensemble-Matrix* *Kathmandu, Nepal*

- Designed an algorithm to create a synthetic signature to train a model to classify between real and synthetic signature.
- Designed and built a machine learning model to predict bank cheque signature's authenticity with high accuracy.
- Applied Run Length Encoding to compress the image size by high ratio.
- Technologies Using: Python, Google Colab, OpenCV, Keras, Docker, Git

**Unity3D Intern** Nov 2020 – Mar 2021
*diyo.ai* *Kathmandu, Nepal*

- Designed and built an application to improve client's jewellery business using Augmented Reality.
- Implemented UI features like sharing, saving, deleting and viewing captured image.
- Technologies Using: Unity3D, Git

**AI Developer Intern** Aug 2019 – Feb 2020
*Mpercept Technology* *Kathmandu, Nepal*

- Designed, developed and maintained conversational agent for platforms like e-commerce, travel agency and academic consultancy.
- Designed a model to calculate speed of moving cars using Computer Vision.
- Found valuable insights of client's HVAC user data.
- Technologies Using: Python, Rasa, OpenCV, Google Colab, AWS EC2, Git

## Education

**Tribhuvan University** Nepal
*B.Sc. Computer Science and Information Technology* *2015 – 2019*

- First Division, 72.02/100
- Courses: Probability and Statistics, Artificial Intelligence, Neural Networks, Advanced Java Programming etc.

**Higher Secondary Education Board** Nepal
*Science* *June 2012 – 2015*

- First Division, 65.07/100
- Courses: Physics, Chemistry, Mathematics etc.

## Research and Projects

**7 Days of Computer Vision Projects** | *Python, Mediapipe, OpenCV*
- Done projects like realtime background changing, gesture writing, playing games using gestures, gesture calculator.
- Writing a blog at my GitHub page.

**Corn Leaf Infection Detection** | *Python, Google Colab, OpenCV*
- Collected 4000 corn leaf images from corn field and made annotated data public on **Kaggle**.
- Using YOLO model for training.
- Writing a blog at my GitHub page.

**NEPSE Data Visualization** | *Python, Pandas, BeautifulSoup, Streamlit*
- Wrote a Python codes to scrape data from NEPSE (Nepal Stock Exchange) website and visualize on realtime.
- Wrote a blog at **my GitHub page**.

**Contour Based Visually Writing System** | *Python, Jupyter Notebook, OpenCV*
- Wrote a Python code to write on canvas by moving fingers in front of the camera.
- Made animations and User Interface within a OpenCV frame.
- Wrote a blog at **my GitHub page**.

**Face Mask Classification** | *Python, OpenCV, Heroku*
- Wrote Python codes to detect face and classify whether a face have mask or not.
- Wrote a blog at **my GitHub page**.

**Devanagari Handwritten Word/Char Detection** | *Python, Google Colab, OpenCV*
- Used CNN model as a classifier and NumPy to segment characters within a word.
- Wrote a blog at **my GitHub page**.

## Extracurricular Activities

**Mentor** Aug 2020

*Blogging with GitHub page @ Hetauda School of Management and Social Sciences*
- Gave a talk to 40+ students remotely about how to getting started with GitHub and GitHub pages.

**Mentor** Aug 2020

*Deploying Computer Vision Model @ Girlscript Agartala*
- Gave a talk to students remotely about how to deploy computer vision models on Heroku.
- Performed a project **Face Mask Classification** from Scratch.

**Mentor** Dec 2019

*3 Days Intensive Boot Camp in AI @ Prime ICT Club*
- Gave a brief talk to 40+ students about basic Image Processing to simple Convolutional Neural Networks.

**Mentor** Sept 2019

*2 Days Intensive Boot Camp in Computer Vision @ Mpercept Technology*
- Gave a talk to students about basic Image Processing to simple Convolutional Neural Networks.

## Skills

**Languages**: Python, C-sharp, C/C++, HTML, Java
**Database**: SQL
**Frameworks**: Tensorflow, Pandas, Flask, OpenCV, Rasa, Mediapipe
**Human Languages**: Nepali, English, Hindi
**Developer Tools**: Unity3D, Docker, Jupyter Notebooks, Git, Google Colaboratory, VS Code, Heroku, AWS
**Blogging**: q-viper.github.io
**YouTube Content Creation**: DataQoil