# Ashish Jaiswal

http://jashish.com.np

# PERSONAL DETAILS

Birth November 04, 1995

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# **EDUCATION**

# Micro-masters in Artificial Intelligence

2018-2019

ColumbiaX, EdX Program

Pursuing a verified micro-masters (sponsored by Fusemachines Nepal) from Columbia University (New York) on EdX. Certificates received for Artificial Intelligence, Machine Learning and Robotics. Final course "CGI" starts from January 2019

# Bachelors in Electroincs & Communication Engineering

2014-2018

Kathmandu Engineering College, Tribhuvan University

Completed my undergraduate focused on Computer Science, Embedded Systems and Robotics with Regular (Full) Scholarship

#### **High School**

2011-2013

Pentagon International College, TU

Majored my high school in Physical Science with partial scholarships.

# **WORK EXPERIENCE**

### Software Engineer

2018-present

Insight Workshop, Full-time

Implement AI & ML algorithms for optimization of web applications and services (data related applications like similarity, classification). Work with AWS services such as EC2, RDS, Lambda, S3, Cloudwatch, etc. Develop web applications in Django and Angular with the implementation of MySQL server technology for database transactions.

#### Machine Learning Engineer Trainee

2017-2018

Insight Workshop, Part-time Intern

Learned implementation of traditional machine learning techniques along with IoT integrated web applications such as human classification using CCTV cameras, attendance system for the company using biometric fingerprint device.

### Innovator as a Firmware Developer

2016-2017

National Innovation Center, Part-time Contributor

Programming in C and AVR for stabilization of medical drone using LQR (Linear-Quadratic Regulator) technique. Customized flight controller for accessible GPS tracking in rural places of Nepal.

# **AWARDS & CERTIFICATIONS**

Fusemachines AI Scholar 2018 - Practical Hands on AI & Deep Learning

Certification - CSMM.103x: Robotics - Columbia Micromasters Program

Certification - CSMM.102x: Machine Learning (ML) - Columbia Micromasters Program

Certification - CSMM.101x: Artificial Intelligence (AI) - Columbia Micromasters Program

Winner - Datathon (Data Analysis Competition) 2018 - Fusemachines Nepal

Best Engineering Award - IOE Robocon 2018

Fusemachines AI Fellowship - Columbia Micromasters Program 2018 - Artificial Intelligence

**Tech Diversity Scholarship (Code for Nepal)** - Web Development with Python - IW Academy (Sponsored by Nepal Telecom)

1st Runnerup - Krishakcopter (Yantra) - International Drone Competition 2016

1st Runnerup - Robodrift 3.0 - Kathmandu Engineering College 2015

SemiFinalists - Manual Akhada - Yantra 2015

Regular (Full) Scholarship - Bachelors in Electronics & Communication Engineering

Partial Scholarship - Physical Science in High School - 2011

# INTERESTS & SKILLS

Computer Science Data Structures, Vision, Robotics, AI, ML, DL

Software Python, C/C++, AVR, DL Frameworks: PyTorch, Keras

Web DJANGO, ANGULAR, LINUX, AWS, NGINX

# **PROJECTS & INVOLVEMENTS**

#### IoT in Medicine

BP & Heart Rate monitoring system with Angular SPA powered by Django REST API

# Computer Vision in Medicine

Retinopathy grading with the implemenation of ResNet50 architecture along with normalization of X-rays

### CMS and commercialized web applications

Professional multi-tenant web applications along with the implementation of various classification and NLP techniques to reduce data redundancy and find similarity

# **Artificial Intelligence Projects**

Implementation of search algorithms such as BFS, DFS, A\* from scratch. Also, AI agents for solving games like 2048, Sudoku using Adversarial search and CSP. NLP sentiment analysis

# **Machine Learning Projects**

Ridge Regression & Active Learning, Bayes Classifier Implementation, Clustering (k-means, EM Gaussian)

#### KrishiSathi

Senior year project: A web-based system integrated with IoT device and machine learning (Random Forest Classifier) for precision agriculture.

### Robotic Arm

Junior year project: An arduino-driven industrial robotic arm prototype with record and play feature.

### 3-Day Drone Workshop as a Trainer

Conducted a drone building workshop in Baglung along with two co-members with a motive of democratizing technology in rural areas of Nepal.

### Hexacopter with customized KK2 flight controller

Intended as a prototype for farmers to sprinkle pesticides on crops and monitor them remotely.

#### Nepali Number Plate Detection Project

Implementation of OCR using the Teserract engine for a national software exhibition (LOCUS)

### 2D Box Game with OpenGL (C++)

Built a console game in the freshman year, as a learning process of OpenGL in C++)