

# ABHISHEK PAUDEL

Fairfax, Virginia, USA  
abpauadel@outlook.com

## EDUCATION

---

**George Mason University, USA**

*August 2019 - Present*

PhD in Computer Science

Department of Computer Science

*Research Interests: Machine Learning, Computer Vision*

**Tribhuvan University, Institute of Engineering, Nepal**

*November 2013 - September 2017*

Bachelor of Engineering, Computer Engineering

## SKILLS

---

**Programming Languages**

Proficient in Python

Good Experience in C/C++

Familiar with JavaScript, PHP, MATLAB & Assembly

**Libraries & Frameworks**

PyTorch, TensorFlow, Keras, scikit-learn,

NumPy, pandas, matplotlib

**Web & Databases**

HTML/CSS, Django, Nginx, SQL, MongoDB

**Tools & Utilities**

Git, LaTeX, Robot Operating System, Microsoft Azure

**Languages**

English, Nepali, Hindi

## WORK EXPERIENCE

---

**United Nations Children's Fund (UNICEF) Nepal**

*January 2015 - August 2019*

*Technical Consultant*

- Developed and deployed various SMS based applications along with real-time/off-line analytics for tasks like automated communication with teachers in remote districts, location tracking of UNICEF field staffs and information dissemination & monitoring of UNICEF's cash transfer program.
- Provided technical support in development and deployment U-report platform as a part of Shout Out For Health program initiated by Bill & Melinda Gates Foundation. U-report is a free, SMS-based system that allows young people to speak out on what is happening in communities across their country using their mobile phones, and visualizes the data in real-time.
- Led the development and piloting of the first of its kind SMS based information dissemination and monitoring system for Government of Nepal to enhance its existing management information system used for social security program.
- Drafted technological and programmatic strategy to implement mobile phone based technologies for youth engagement in policy process.

## TEACHING EXPERIENCE

---

**George Mason University, USA**

*August 2019 - Present*

*Graduate Teaching Assistant*

Affiliated with Computer Science Department in Volgenau School of Engineering. Courses assisted: CS112 (Introduction to Computer Programming), CS262 (Introduction to Low-Level Programming) and CS584 (Theory and Applications of Data Mining).

Taught introductory course on machine learning and data science along with designing and evaluating assignments and projects.

## **PROJECTS**

---

### **Pen Path Approximation on MNIST Digits**

Extracting a sequence of coordinate points along the path of digits from images of handwritten digits by making use of techniques like k-means clustering and mean squared error optimization.

### **Cuisine Classification**

Using recipe ingredients to make predictions about the type of cuisine.

### **2048 AI**

An AI that solves the popular 2048 puzzle game using minimax optimization and alpha-beta pruning based on multiple heuristics.

### **Musick**

A recommendation system that recommends music based on the personality of a person inferred from social media using natural language processing techniques.

### **SlideCast**

A tool that allows live broadcasting of presentations to computers and smart phones in a network.

### **Chatbot**

Conversational bot that generates responses to questions based on Markov model and pattern matching.

## **PUBLICATIONS**

---

**A. Paudel**, B. R. Bajracharya, M. Ghimire, N. Bhattarai and D. S. Baral, "Using Personality Traits Information from Social Media for Music Recommendation," *2018 IEEE 3rd International Conference on Computing, Communication and Security (ICCCS)*, 2018, pp.116-121. DOI:10.1109/CCCS.2018.8586831

## **AWARDS & ACHIEVEMENTS**

---

Artificial Intelligence MicroMasters<sup>®</sup>, Columbia University

First Nepal AI Winter School Scholarship

Fusemachines Artificial Intelligence Fellowship

Winner, LOCUS Hack-A-Week

Microsoft YouthSpark Challenge for Change Award

Microsoft Student Partner

## **EXTRA-CURRICULAR**

---

AI Fellow, Fusemachines

Facilitator, AI for Social Good Workshop, Kathmandu Mini Maker Faire

Software Coordinator, LOCUS National Technological Festival

Event Coordinator, Hult Prize @ Tribhuvan University

Participant, Asia-Pacific HLM3 Youth Innovation Challenge Workshop (Malaysia)

Speaker, Global Innovations for Children and Youth Summit (Finland)

Volunteer, Me to We Youth Volunteer Trip (Kenya)