

# Himalaya Sharma

Portfolio: <https://himalayasharma.github.io/>

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## EDUCATION

- **University of Waterloo** Waterloo, Canada  
Master of Engineering - Electrical & Computer Engineering  
*Relevant Coursework:* Deep Learning, Machine Learning, Statistics for Data Analysis
- **Birla Institute of Technology & Science** Goa, India  
Bachelor of Engineering - Electronics & Communication Engineering  
Master of Science - Biological Sciences  
*Relevant Coursework:* Linear Algebra, Calculus, Probability & Statistics, Digital Signal Processing, Introduction to Bioinformatics

## SKILLS SUMMARY

- **Languages:** Python, R
- **Frameworks:** Scikit, NLTK, SpaCy, TensorFlow, Keras, Django, Flask, NodeJS, LAMP
- **Tools:** Kubernetes, Docker, GIT, PostgreSQL, MySQL, SQLite
- **Platforms:** Linux, Web, Windows, Arduino, Raspberry, AWS, GCP, Alibaba Cloud, IBM Cloud
- **Soft Skills:** Leadership, Event Management, Writing, Public Speaking, Time Management

## EXPERIENCE

- **Google Summer of Code - Submitty** Remote  
*Student Developer (Full-time)* May 2019 - Sep 2019
  - **Discussion Forum Upgrades:** Refactor forum for performance to handle large databases.
  - **REST API for Discussion Forum:** Symphony & Twig based Forum parts converted to API-first interface.
  - **Ratchet PHP WebSocket:** Implemented a WebSocket for low-latency real time exchange of posts and thread updates.
- **DataCamp Inc.** Remote  
*Instructor (Part-time, Contractual)* Dec 2018 - Present
  - **Project Course - Find Movie Similarity from Plot Summaries:** Created project based course using Unsupervised learning and natural language processing.
  - **Tutorial - Introduction to Reinforcement Learning:** Created tutorial for Q-learning RL algorithm and concepts.
  - **Impact:** Course has been taken by 250+ students so far with 4.65 average rating.

## PROJECTS

- **Vision - multimedia search engine (NLP, Search Engine, Web Crawlers, Multimedia Processing):** (Work in progress) Research oriented, open source, search engine for bringing reverse multimedia search to small & mid scale enterprises. Tech: Python, NodeJS, Intel OpenVino Toolkit, Selenium, TensorFlow (October '18)
- **Reinforcement Learning based Traffic Control System (Reinforcement Learning, Computer Vision):** AI model to resolve city traffic around 50% faster. Tech: Python, Alibaba Cloud, Raspberry Pi, Arduino, SUMO & OpenCV. (August '18)
- **Panorama from Satellite Imagery using Distributed Computing (Distributed Computing, Image Processing):** Images clicked using drones, provided by ISRO were stitched together using distributed public compute nodes, effectively bringing down processing time exponentially. Tech: PHP, C++, Java, Python (March '18)
- **Drag-n-drop machine learning learning environment (Web Development, Machine Learning):** Scratch like tool for implementing machine learning pipelines along with built in tutorial for each concept. Tech: Python, JavaScript (September '18)
- **Search Engine and Social Network (Web Development, Web Crawler, Search):** Created from scratch a social network and a search engine based on the idea of integrating Facebook and Google. The launched website was among top 1000 websites in India during 2012-2013. Tech: PHP, MySQL, HTML, CSS, WebSockets, JavaScript, RSS, XML ( May '12)

## PUBLICATIONS

- **Book: Deep Learning on Web (Web Development, Deep Learning):** Work in Progress book to be published by Packt Publishing in late 2019. Tech: Django, Python, AWS, GCP, Azure (November '18)
- **Book: Deep Learning on Mobile Devices (Flutter App Development, Deep Learning):** Work in Progress book to be published by Packt Publishing in late 2019. Tech: Flutter, Android, Firebase, TensorFlow, Python, Dart (December '18)

## HONORS AND AWARDS

- Awarded title of Intel Software Innovator - May, 2019
- Second Runner's Up at TCS EngiNx Engineering Project Innovation Content - September, 2018
- Runner's Up at Facebook Developers Circle Hackathon - August, 2017

## VOLUNTEER EXPERIENCE

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### **Community Lead at Developer Student Clubs NSEC**

- *Conducted online and offline technical & soft-skills training impacting over 3000 students.*

Kolkata, India

Jan 2019 - Present

### **Event Organizer at Google Developers Group Kolkata**

- *Organized events, conducted workshops and delivered workshops reaching over 7000 developers.*

Kolkata, India

Jan 2018 - Present