

# SAMARTH JAIN

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in jsamarth  
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## Skills

### CODING LANGUAGES

Java  
C/C++  
Python  
SQL  
Clojure  
Javascript  
PHP  
HTML/CSS  
C#

### FRAMEWORKS

MATLAB  
AngularJS  
ReactJS  
MeteorJS  
MongoDB  
Ionic  
Selenium (Python)  
Unity  
NodeJS

### LIBRARIES

CUDA (C)  
Tensorflow (Python)  
Pandas (Python)  
Scikit-learn (Python)  
Beautiful Soup (Python)

### OTHERS

Git/Github  
x86 Dev  
Data Structures  
Web Scraping  
Linux Kernel  
iOS Dev  
Agile Development  
(currently undertaking)

## Languages

- English (native proficiency)
- German (basic proficiency)
- French (basic proficiency)
- Hindi (native proficiency)

## Education

École polytechnique fédérale de Lausanne, Switzerland (Exchange) Feb. 2019 to June 2019

B.Sc. in Computer Engineering

Relevant Coursework: Computer Vision, Artificial Neural Networks, Databases, Computer Security, Virtual Reality

University of Illinois at Urbana-Champaign May 2020

B.Sc. in Computer Engineering

Gpa: 3.15 / 4.00

Relevant Coursework: Applied Parallel Programming in GPU, Computer Systems & Programming, Data Structures, Signal Processing, Deep Learning by Andrew NG (Coursera), Operating System and x86

## Employment

Bio-classification Research Assistant Champaign, IL

Research under Dr. Olgica Milenkovic (ECE @ UIUC)

Mar. 2018 to Current

- Working on finding patterns between particular bacterial-taxons that can cause specific diseases, and their occurrence in both sexes.
- Collected Human Microbiome data from more than 25,000 samples
- Cleaning and preparing data using multiple techniques, such as Principal Component Analysis
- Implementing a Neural Net using Tensorflow to analyze that data

NLP Research Assistant Champaign, IL

Research under Dr. Suma Bhatt (C3SR, IBM @ UIUC)

Sept. 2016 to May 2017

- Worked at Center for Cognitive Computing Systems Research
- Developed an artificial cognitive system that can ingest huge amounts of data from the internet from sources such as media, files, content of Massive Open Online Courses etc., and classify it
- Scraped Web using Python and Beautiful Soup to extract information from sites like Wikipedia

## Projects

Traffic Simulation for Autonomous Vehicles Dec. 2018 to Dec. 2018

- Optimized the algorithm to allow a greater average speed of an autonomous vehicle through a traffic situation on the road
- Pruned the hyperparameters to increase the average speed to greater than 70 mph, using the given Deep Reinforcement Learning code

ConvNet on CUDA for NVIDIA GPUs Mar. 2018 to May 2018

- Used CUDA C library to build a Convolutional Neural Net that can do the computations on GPU
- Applied parallel programming practices for Convolutions and List reductions on CUDA C GPU kernels

Linux-Inspired Simplistic Kernel Aug. 2018 to Dec. 2018

- Worked on making a kernel inspired from Linux, but simplistic
- Incorporated different features of the real Linux kernel, such as the File System, Paging, RTC, and Process-switching code
- Wrote drivers for the kernel, for the keyboard and the file system

## Awards

AngelHack Delhi · Winner - Twitter Prize June 2016

- Used sentiment analysis algorithms to extract public sentiments on Twitter, using Flask, HTML, CSS and Javascript
- Formulated and organized the data in the form of real-time graphs, using Numpy

## Volunteering

Student Alumni Ambassadors, UIUC · Senior Member Mar. 2017 to Current  
Champaign, IL

Plan and execute large-scale events on campus that create an impact in the campus community