# Vibhu Bhatia

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#### EDUCATION

**Boston University** 

Boston, MA

Master of Science in Computer Science; GPA: 3.75/4

 $Expected\ May\ 2021$ 

Netaji Subhas University of Technology

Delhi, India

Bachelors of Technology in Biotechnology; GPA: 7.6/10

Sep 2015 - May 2019

## SKILLS

Languages: Python, C++, JavaScript, Matlab, HTML/CSS, SQL, MongoDB

Libraries: Pytorch, Pyspark, Tensorflow, pandas, NumPy, Matplotlib

Frameworks: Node.js, Flask, React-Native, Laravel

Technologies: Git, Docker, Linux, GCP/AWS, Android Studio, OpenCV, WebSocket, RESTful API

#### EXPERIENCE

### Optimal Lab, Boston University

June 2020 - Present

Graduate Research Assistant

Boston, MA

- Created and Compiled a library of 10 1-D convex functions and 12 pytorch optimizers, designed unit tests for optimizers and scaled it to multiple threads reducing running time from 30 hours to 2 hours .
- Automated the process of obtaining the results, comparing with baselines and visualizing results.

BU Spark! Feb 2020 – May 2020

Innovation Fellow(Backend Engineer, NextChange)

Boston, MA

- Built the data pipeline engine for collection and processing of **raw trading data**, **candlestick data**(for different time intervals) from major crypto exchanges like Binance, Bibox and LBK using **Websockets in python**.
- Created a REST API for accessing data via queries using node.js, and created a server for providing real-time price updates to clients for further downstream tasks.

LeanTrack Sep 2017 – Jan 2019

Lead Strategist

Delhi, India

- Provided advisory services for **over 20 early stage startups** and helped build their tech platforms, connect to investors and generate profits using a **data driven approach**.
- Researched, developed and automated the LSAAT(startup ability assessment tool) model to rate startups.
- Created **Rest API and Deployed micro services** using Express.js and docker containers in Nginx for hosting trained models, Payment Gateway and Email Automation.

## Projects

Cats vs Dogs | DogsActive Learning for Efficient Labelling of Image Data

- Implemented Adaboost learning algorithm from scratch in Matlab and used matlab's deep learning toolbox to train Conv. net as a baseline.
- Achieved results close to baseline using just 40% of the data.

#### Real Time Microscopy Image Super Resolution | Undergrad Research@NSIT

- Proposed changes in the model of SRGAN for improving the quality of SR images and ran experiments in python which achieved **better accuracy while running in lesser time**.
- Built a web portal and server using Flask in python and a mobile app using react-native which allowed users to send images to computer via Websockets.

 $\textbf{Task scheduler} \mid \textit{An interactive CPU scheduler visualizer}$ 

• A javascript based **Debuggable CPU scheduler** which simulates different OS preemptive scheduling algorithms such as Round Robin, Rate Monotonic and Earliest deadline.

## LEADERSHIP EXPERIENCE

- Got recognised as innovative product by Bose in Boston Hacks, 2019.
- Acting as Technical Head of **Ecell, NSIT**, mentored 50+ students for technical skill development and lead a team of 5 devs for developing ecell website.
- Started an Initiative For Her, to promote female entrepreneurship in India and incubated 5 female led early stage startups.