

ABHIJEET DUBEY

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ACADEMIC DETAILS

Year	Degree / Certificate	University / School	CPI / %
2019 (expected)	M. Tech (Computer Science and Engineering)	IIT Bombay	8.05 / 10
2016	B. Tech (Computer Science and Engineering)	IIIT Jabalpur	8.4 / 10
2012	Class XII (CBSE)	Maharishi Vidya Mandir, Jabalpur	92.2 %
2010	Class X (CBSE)	Maharishi Vidya Mandir, Jabalpur	9.2/10

FIELDS OF INTEREST

Machine Learning

Algorithms

INTERNSHIPS

Google Summer of Code

(Ongoing)

Software Developer, Intern

- Currently working with *The Linux Foundation* and implementing a common print dialog that will enable users to print documents easily.
- Developing a backend for common printing dialog using google cloud print API to facilitate printing on google cloud printers from anywhere using any device.
- *Project Link:* [Google Cloud Print Backend](#)

Oracle Corporation

(Jun'15 - Nov'15)

Software Developer, Intern

- Used tabular testing tools like Synergy to develop robust test scripts and produced better results in less time.
- Designed and developed test suite to perform smoke testing of Oracle's SIM software.

Uddhat Softwares Pvt. Ltd.

(Jun'14 - Jul'14)

Web Developer, Intern

- Developed an online marketplace offering tasks and services.
- *Technologies:* PHP, MySQL, HTML, CSS, Bootstrap3, Laravel4, Javascript

PROJECTS

Music Generation Using LSTM

(Feb'17 - Apr'17)

- Used RNN and LSTM based approach to synthesize music frames for Piano music and Electronic Dance Music (EDM).
- Used Tensorflow to train LSTM based model on audio samples to synthesize music from two widely different genres using their STFT features.
- Used AdaDelta optimization method to minimize mean squared loss between the ground truth feature vector and the predicted feature vector.
- *Project Report:* [Music Generation using LSTM](#)

Intelligent Carrom Player

(Oct'16 - Nov'16)

- Used continuous actor-critic methods and reinforcement learning techniques and developed an agent that can play carrom both in one player and two player setting.
- Implemented a policy network that takes current state as input and produces three action components namely striker's position, angle and force as outputs.
- Our best agent clears the board in 23 turns on average in single player mode.
- *Project Report:* [Designing an Intelligent Carrom Player](#)

Music Genre Classification

(Feb'17 - Apr'17)

- Used classifiers like Decision Tree, Random Forests, Multi Class Neural Network to classify music genres.
- Trained our models on *GTZAN* dataset consisting of 1000 audio samples of 30 seconds each.
- We were able to achieve 63.5% accuracy using only timbral features which was an improvement of 2.5% over the original *GTZAN Music Genre Classification Paper*.
- *Project Report:* [Music Genre Classification](#)

OJ (ACM ICPC Style Online Judge)

(Oct'16 - Nov'16)

- Used MVC architecture and Laravel(PHP framework) along with MaterializeCSS to develop ACM ICPC style online judge.
- <https://github.com/dracarys09/oj>

Recommending Accounts to Twitter Users

(Mar'15 - Apr'15)

- Used machine learning techniques like collaborative filtering and clustering to develop a smart web interface which suggests interesting twitter accounts to follow.
- Used 3-NN to predict 3 most interesting accounts to follow.

IMPORTANT COURSES UNDERTAKEN

Foundations of Machine Learning
Design & Analysis of Algorithms

Automatic Speech Recognition
Linear Algebra

Foundations of Intelligent & Learning Agents
Game Theory

TOOLS & LIBRARIES

- **Languages:** C/C++(advanced), Python(advanced), PHP(beginner), Javascript(beginner), Haskell(beginner)
- **Frameworks:** Tensorflow, Laravel
- **Tools:** git, sed, awk, gdb, GnomeBuilder, L^AT_EX

ACHIEVEMENTS

- Qualified for onsite regionals of **ACM ICPC** for Amritapuri Regionals in 2015.
- Awarded **Certificate of Merit** two times for exceptional academic achievements during freshmen year and sophomore year.
- **1st** place in Obfuscated 2015 (programming competition).
- **Won Bronze Medal** in National Round of iURL, held at IIT Bombay in March 2014.
- My team (Paradigm Shift) was ranked **748** out of more than 32000 teams in TCS CodeVita 2015.