

# Shubham Dokania

SOFTWARE DEVELOPER · FULL STACK DEVELOPER

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## Education

### Delhi Technological University(Formerly DCE)

B.TECH. IN MATHEMATICS AND COMPUTING ENGINEERING

New Delhi, India

Aug. 2013 - PRESENT

### North Delhi Public School

AISSCE (ALL INDIA SENIOR SCHOOL CERTIFICATE EXAMINATION)

New Delhi, India

Apr. 2011 - May. 2013

## Skills

**Programming** Python, C++, C, Java, MySQL, JavaScript, Shell Scripting, Arduino, MATLAB,  $\LaTeX$ , HTML

**Frameworks & Libraries** Django, Flask, Theano, OpenCV, Keras, TensorFlow, PyBrain, Numpy, Scipy, Play Framework, OpenGL

**Familiar** C#, Node.js, Android, MongoDB, PostgreSQL, Unity3D, Lua, Apache Spark, Hadoop, Ruby

## Experience

### Evolutionary Computing and Research Lab, DTU

UNDERGRADUATE RESEARCHER

New Delhi, India

Sept. 2015 - PRESENT

- Studied various evolutionary optimization algorithms and their implementation on multi-dimensional objective functions.
- Developed a robust modification of an algorithms for global optimizations in multi-dimensional search space.

### Greplr

CO-FOUNDER & FULL STACK DEVELOPER

New Delhi, India

May. 2015 - PRESENT

- Developed a hyper-local discovery platform and service aggregation application with a scalable architecture.
- Exposed REST APIs to support android application using Flask(Python Framework) and Parse for Database backend and analytics.

### Omnipresent Robot Tech.

SOFTWARE ENGINEERING INTERN

New Delhi, India

July. 2015 - Aug. 2015

- Built a cross-platform application called SpeedObotiX using Qt Framework for Python.
- Application enables students to build robots without writing code and graphical logic controls.

## Honors & Awards

Oct. 2015 **Grand Prize Winner**, Code For India Hackathon

New Delhi, India

July 2015 **Grand Prize Winner**, HackIndia 2015

Bangalore, India

Apr. 2015 **1st in Track**, PolicyHacks by EPoD, Harvard University

New Delhi, India

Mar. 2015 **3rd Position**, </geekfest> 2015 by 91SpringBoards and IBM Bluemix

New Delhi, India

Mar. 2015 **Special Mention**, Byldathon at IIIT Delhi

New Delhi, India

Oct. 2013 **Best Student Award**, The Times of India(TOI)

New Delhi, India

Aug. 2010 **2nd in State**, National Science Talent Search Examination

New Delhi, India

## Projects

### RNN and LSTM based Text Generation

MACHINE LEARNING, NATURAL LANGUAGE

New Delhi, India

Nov. 2015 - Dec. 2015

- Built Neural Network model based on RNNs and LSTMs to understand a given text corpus and form a probabilistic language model.
- Written in Python using Keras and Theano Libraries. Deployed on a VPS with logging to monitor progress.

### Food Requirement Simulation and Prediction

DATA SCIENCE, SERVER, MACHINE LEARNING

New Delhi, India

Oct. 2015

- Developed a web dashboard to display data and predictions for food consumption and wastage for the NGO Akshaya Patra.
- Exposed APIs for data and Predictions using Django. The prototype won the Grand Prize award at CodeForIndia 2015 Hackathon.

## Genetic Evolution in Game Playing Bots

New Delhi, India

EVOLUTIONARY ALGORITHMS, GAME THEORY, NEURAL NETWORKS

Sept. 2015 - Oct. 2015

- Created a Genetic Evolution based Tic-Tac-Toe playing bot which evolves on the principle of natural selection.
- Built Using Python and Numpy library. Learned about evolutionary algorithms and role of genetic programming in optimizations.

## Autonomous Robot Navigation System Using Kinect

New Delhi, India

COMPUTER VISION, EMBEDDED SYSTEMS

Mar. 2015 - May 2015

- Built an autonomous robot and designed it's obstacle avoidance and navigation system using OpenCV Python library.
- Analyzed performance results on different development boards (Raspberry Pi, BeagleBone Black etc.) by running the python scripts and optimizing computations for better performance.
- Used Depth maps and pixel intensity calibrations to compute distance of multiple obstacles and calculate a feasible path.