# Harshit Agarwal

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# **EDUCATION**

# University of Illinois At Urbana Champaign

#### **BS in Computer Science**

Expected May 2018 | Urbana, IL GPA: 3.7/4.0

College of Engineering Dean's List Fall 2016, Spring 2016 James Scholar Course Staff for Honors Intro to CS

# COURSEWORK

Applied Machine Learning
Text Information Systems
Systems Programming
Database Systems
Theory I (Algorithms)
Computational Photography
Distributed Systems
Social and Information Networks

# SKILLS

### **PROGRAMMING**

Experienced:

Python • Java • C++ • C Matlab • SQL • MongoDB

Familiar:

Shell • JavaScript • R • Go

HTML • CSS • Haskell • MIPS

Other Technologies:

Kafka • Storm • Spark

ElasticSearch • TensorFlow

ScikitLearn • Avro • PCL • Mesos

OpenCV

# **EXPERIENCE**

#### SALESFORCEIQ | SOFTWARE ENGINEERING INTERN

June 2016 - Present | Palo Alto, CA

- Built a SalesforceIQ bot for Slack, which enables users to get push notifications and make simple queries through Slack
- Made multiple additions to the existing API and built the architecture for SalesforceIQ's internal webhooks
- Worked on a range of dev-ops tools to improve internal Github and Jira integrations

#### STATE FARM | SYSTEMS INTERN

May 2015 - Aug 2015 | Urbana, IL

- Built an in car gesture recognition system to detect distracted driving using computer vision, working with a point cloud capturing device
- Created a customer retention model by using topic modeling on Twitter data and combining it with a logistic regression model to predict customer attrition

#### RESEARCH

# CROWD DYNAMICS LAB AT UIUC | UNDERGRAD RESEARCHER

August 2015 - May 2016 | Urbana, IL

Worked with Professor Hari Sundaram to analyze the evolution of a person's behavior in different communities. Using Gaussian HMMs and network analysis to cluster behavior change patterns observed in research and in Internet communities such as Stack Exchange.

#### PRO IFCTS

#### SELF DRIVING RC CAR | ARDUINO AND OPENCY POWERED CAR

October 2015 | github.com/hagarwa3/self\_driving\_rc\_car

An Arduino powered car that can navigate a simple track and detect objects, navigated via an attached camera and RaspberryPi. Also includes a proper streaming setup to view the car's decisions in a browser as they happen and control it remotely. Built with Python, OpenCV, ScikitLearn and Arduino

#### TRUMPBOT | MARKOV CHAIN CHATBOT

March 2016 | harshit.xyz/chatbot

A conversational Markov chain chat bot that can be trained on any corpus of text. Trained it on transcripts of Donald Trump's speeches, and deployed it through Twilio and a web app. Built using Python, Flask and Twilio

# SEARCHOVERFLOW | SMART SEARCH ENGINE FOR STACK OVERFLOW DATA May 2016 | github.com/hagarwa3/stackoverflow-search

Used the StackOverflow data dump and ElasticSearch to create a search engine, and trained a keyword extraction algorithm to build smart queries. Also used the indexed data to gather insights regarding people's question on StackOverflow. Built using Python, ElasticSearch, Flask and Shell

# **ACTIVITIES**

# ASSOCIATION OF DATA SCIENCE AND ANALYTICS | PRESIDENT Jan 2015 - Present | Urbana, IL

- Work on a different data based project every semester. Past projects have included stock trend prediction and search relevance prediction
- Organized sample projects and resources for workshops on Spark, databases, Python, basic machine learning and basic NLP
- Organized the ADSA Data Summit, UIUC's first student run big data conference