Harshit Agarwal

harshit.xyz   github.com/hagarwa3   hagarwa3@illinois.edu   (510)298-6731

EDUCATION

University of Illinois At Urbana Champaign

BS in Computer Science
Expected Dec 2017 | Urbana, IL
GPA: 3.66/4.00
College of Engineering

MS in Computer Science
Expected Dec 2018 | Urbana, IL
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
Adv. Distributed Systems
Adv. Social and Information Networks
Computational Photography
AI for Autonomous Vehicles
Database Systems

FALL 2017
Machine Learning for Signal
Processing

SKILLS

PROGRAMMING
Experienced:
Python • Java • C++ • Scala
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 • Akka

MISCELLANEOUS

Some people know me for my memes.
I use my knowledge about emergent
behaviors in online communities to
explain memes. I've presented this at
UIUC and at Salesforce and have
gained fame on Reddit for the same.

EXPERIENCE

Salesforce.com | Data Engineering Intern   Summer 2017
Intern on the Salesforce's Einstein Platform team. Building an updated data delivery and verification architecture for scoring results for leads processed by the platform's models. Also helped migrate data fetching for the platform onto Azkaban.

SalesforceIQ | SWE Intern   Summer 2016
Built Slack bots that enables users to run queries from within Slack and to get configurable push notifications for important updates. Also created SalesforceIQ's internal webhook architecture.

State Farm | Systems Intern   Summer 2015
Built an in car gesture recognition system to detect distracted driving. Built using random forests and neural networks trained on collected point clouds and image data.

RESEARCH

Crowd Dynamics Lab at UIUC
Worked with Professor Hari Sundaram to analyze and cluster the behavior evolution patterns in online communities using Gaussian HMMs and network analysis.

Distributed Protocols Research Group
http://hagarwa3.web.engr.illinois.edu/gnuggies.pdf
Worked on GNuggies - a framework for hosting services on untrusted volunteer nodes. The goal was to make censorship impossible online by enabling large scale resource sharing. GNuggies features a novel trust mechanism and has high resilience guarantees.

PROJECTS

IllinoisAUV RoboSub   July 2017
Our team made it to the semi-finals in the annual RoboSub (autonomous submarine) competition. I built multiple vision based strategies to enable our submarine to navigate a challenge course. This involved both, offline vision models and Faster RCNNs trained on data collected during the competition to identify and locate challenge specific objects underwater.

AI for Autonomous Vehicles   Spring 2017
Used Hough Transform and Inverse Perspective Mapping to detect lanes from live video in an autonomous car. Used basic motion strategy for planning lane changes. Partnership between UIUC and AutonomouStuff.

SearchOverflow   May 2016
Used the StackOverflow data dump and ElasticSearch to create a search engine, and trained a keyword extraction algorithm to build smart queries.
Built using Python, ElasticSearch, Flask and Shell.

ACTIVITIES

Association of Data Science and Analytics | President
Jan 2015 – Present | Urbana, IL

Worked on different data based projects every semester, including stock trend prediction and search relevance prediction. Have also 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