

Akshita Bhagia

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Education

University of Massachusetts, Amherst
Master of Science (Computer Science)

Amherst, MA
Sep 2018- Expected May 2020

Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT)
Bachelor of Technology (Information and Communication Technology)

Gandhinagar, India
Jul 2011- May 2015
GPA: 8.95/10

Professional Experience

Lead Platform Development Engineer at InFoCusp
Research Programmer at InFoCusp

Feb 18 – Jun 18
Jul 15 – Feb 18

In collaboration with Cerebellum Capital Inc.
Graphical Research And Computing Environment (GRACE)

Jul 15 – Jun 18

Designed and developed core infrastructure systems of the internal platform for data scientists and quantitative analysts for experimentation, research and development, as well as sharing of datasets and predictive models for financial forecasting. Developed a fault-tolerant data flow system which enables fetching, processing, validation and analysis of data coming from different sources with complex inter-dependencies, and is utilized for auto-updating financial time-series data, in order to generate automated strategies for portfolio management. Added multi-language support (Python, Matlab, R, Julia) to the platform for defining computations, as well as the ability for creation of reports (Markup) for performance analysis of generated data and financial strategies.

Mentored an intern on an exploratory project to create editable, digital versions of flowcharts from images, using machine learning to detect individual components such as shapes and arrows.

Jan 17 – Dec 17

Languages and Tools

Languages: Python, C++, C, Matlab, Java, Bash, HTML, JavaScript
Tools and Databases: SVN, Git, Mongo, MySQL, Redis
Operating system: Ubuntu

Selected Projects

Automated Identification and Classification of Plankton Images

Jan 15 – Apr 15

Built models for classification of sea-plankton images into 121 categories by using a training data of 30336 images distributed unequally across classes. The first approach used a Random Forest classifier with hand-crafted features as descriptors for capturing shape and texture based information. The second approach used Convolutional Neural Networks with processed images as input.

Legal Proposition Classification

Jan 14 – Apr 14

Built text-classification models for classifying sub-parts of sentences (called propositions) in legal documents using Support Vector Machine and Naïve Bayes classifiers, and Stanford POS and NER taggers.

Game Design: Treasure of the Oasis

Sep 13 – Nov 13

Developed a game using Panda3D (game engine), consisting of a virtual interactive oasis-farm environment, where the user finds hidden gemstones and a final treasure by navigating through obstacles.

Positions of responsibility

- Student Representative of the Gender Cell at DA-IICT (2014-15).
- Volunteer at Peoples Training and Research Center: Taught basics of computers to the staff, computerized the NGO records, helped the local doctor, surveyed people afflicted by silicosis due to working in the agate industry, and prepared a report on processing of agate stones. (Dec 2012).

Awards and achievements

- Received the Amul Vidya Shree award for Academic Excellence for the year 2008-09 (95.8% in AISCCE examination).
- Received 0.1 merit certificate in Mathematics in AISCCE 2008-09 (100/100 marks – Top 0.1% of successful candidates nationwide).
- Successfully completed a high-altitude (16000ft) Himalayan trek to Roopkund.
- Won multiple folk dance competitions at Undergraduate level.