Chetan Naik

✉ cnaik@cs.stonybrook.edu ☎ +1 631 974 8046
http://chetannaik.github.io 350 Circle Rd., Stony Brook, NY 11790

Education

Aug 14 - May 16 **Master of Science in Computer Science** Gpa: 3.50/4.0
Stony Brook University, Stony Brook, NY.

Aug 07 - Jun 11 **Bachelor of Engineering in Electronics & Communications** Cgpa: 8.67/10.0
R. V. College of Engineering, Bangalore, India.

Development Experience

Jul 11 - May 14 **Google India Pvt. Ltd.** | Analyst

- Developed and launched a ad-click spam filter which addresses one of the most pressing click fraud problems. It has an impact of around $1 million a month.
- Designed and developed metrics infrastructure for the global team of 50 analysts.
- Developed a method based on Pearson correlation coefficient for histogram similarity search to detect detect fraudulent publisher accounts.

Research Experience

Jan 15 - *present* **Natural Language Processing Lab** | **Stony Brook University** | Research Assistant

As part of the Allen Institute for Artificial Intelligence's (AI2) Project Aristo, we are developing a question answering system that can recognize instances of processes. I am working on this project under the supervision of Prof. Niranjan Balasubramanian.

Skills

Programming	Python, C, C++, Lua.
Scientific Software	Torch, Theano, TensorFlow, Scikits-learn, NLTK, Numpy, IPython, Pandas, Caffe.
Technologies	MapReduce, Tenzing, Bigtable, Dremel, ColumnIO, Protocol Buffers, Django.

Projects

- **Bee Classification using CNN**. Sep 15
  Implemented a Convolutional Neural Network (CNN) architecture using Theano to determine the genus of the bee - Apis (honey bee) or Bombus (bumble bee) based on photographs of the insects. Achieved an accuracy of 81.9% with just 25 iterations of training on CPU.

- **Question Answering System using Word Alignment**. Feb 15 - May 15
  Built a question answering system that uses alignment (textual entailment and CRF) over semantic roles to answer and pass a 4th grade science exam. The model has an accuracy of 62.5%.

- **Predicting facial beauty using CNN**. Aug 14 - Dec 14
  Designed and trained a Convolutional Neural Network (CNN) using Caffe (a fast framework for deep learning) to predict facial beauty without using landmark features. This model has an accuracy of 51%.

- **Predicting Super Bowl and College Football champions**. Aug 14 - Dec 14
  Built Point-score difference, Linear Regression and PageRank models to predict the winners of 2015 Super Bowl and College Football Championship. The PageRank model has an accuracy of 63% and it predicted the top two teams correctly.

- **Predicting rating stars of Yelp reviews from review text**. Aug 14 - Dec 14
  Built topic models using LDA and NMF along with sentiment layers to predict the review star rating from review text with 61% accuracy.

- **tMood**. Apr 15
  This is the Pebble app that we developed during bitcamp hackathon. The app analyses the sentiment of people around you using twitter feeds at your location and displays smiley faces on watch representing the mood of the place.

- **Neera - *Rubik's Cube solving robot*.** FEB 15 - MAY 15
  Neera is Rubiks Cube solver robot, designed and built using LEGO Mindstorms NXT and programmed using NXC language.

- **Quadcopter using LPC2148 ARM Controller**. JAN 11 - APR 11
  Came up with a mathematical model of a quad-rotor and an algorithm to correct pitch and roll errors by changing motor thrust. Based on this work, presented a paper entitled 'Design of Quadcopter with closed loop control system' at Visvesvaraya Technological University, Belgaum, in 2011.

- **Project Vyoma - A research project at RVCE to design UAVs**. JUN 09 - JUL 11
  Designed and developed the DaQ system to capture flight data. Achieved 8th position among 70 teams from all over the world in the 'SAE Aero Design' event held in Atlanta, in 2011.

Publications

OCT 15 **Semantic Role Labeling for Process Recognition Questions**.
Samuel Louvan, Chetan Naik, Veronica Lynn, Ankit Arun, Niranjan Balasubramanian, and Peter Clark.
K-CAP Scientific Knowledge Workshop 2015.

Honors and Awards

– Received 2 PQO Gold Awards at Google.
– Received Spot Bonus at Google for my work on histogram based similarity search.
– Received 10 Peer Bonuses for helping out peers by going above and beyond work requirements.

References

Niranjan Balasubramanian
Department of Computer Science
Stony Brook University
Stony Brook, NY 11794
✉ niranjan@cs.stonybrook.edu

Nelson George
Google Anti-Abuse Engineering
1600 Amphitheatre Pkwy
Mountain View, CA 94043
✉ nelsongeorge@google.com