Shantanu Acharya

National Institute of Technology, Aizawl, Mizoram, PIN: 796012, India
thegeek.004@gmail.com | +91 9559959581

AREAS OF INTEREST

Machine Learning
Deep Learning
Computer Vision
Natural Language Processing
Backend Development

EDUCATION

NIT MIZORAM

B.tech in Computer Science and Engineering
Expected June 2019 | Aizawl, India
CGPA: 9.60/10.0 | Department Topper

SPRING DALE COLLEGE, INDIRA NAGAR

Higher Secondary Examination
Grad. May 2014| Lucknow, India
91.80% | 97% in Computer Science

SPRING DALE COLLEGE, INDIRA NAGAR

High School
Grad. May 2012| Lucknow, India
91.40% | 99% in Computer Applications

LINKS

Github:// **shan18**
LinkedIn:// **shanacharya**

SKILLS

Programming Languages

Proficient:
Python • C
Intermediate:
Java • C++
Familiar:
LaTeX • Javascript • MySQL • JSON • Bootstrap • Matlab • Markdown

Tools/Frameworks

Django • git • vim • Numpy • Pandas • Tensorflow • scikit-learn • Amazon Web Services • Heroku • Firebase • Android Studio • Matlab

EXPERIENCE

UNIVERSITÄT HAMBURG | Summer Research Intern | Github

June 2018 – August, 2018 | Hamburg, Germany

- Improved the existing method for taxonomy induction system called "TAXI" in the SemEval 2016 challenge on taxonomy extraction evaluation by introducing distributional semantics.
- Developed a clustering mechanism, which clusters the nodes in the taxonomy, detaches the least similar clusters and adds them back at appropriate places using similarity scores.
- Developed a method which would obtain the nodes which are not included in the taxonomy with respect to the gold standard for that particular domain and add them in appropriate places using similarity scores.
- Used gensim (based on fasttext.cc) and poincare embeddings for similarity score calculations of family cluster and parent node respectively with the detached cluster/new node.
- **Tools:** Python, NetworkX, Gensim, FastText, NLTK

IIT BOMBAY | Summer Engineering Intern | Github

June 2017 – July 2017 | Mumbai, India

- Implementation of remote-triggered virtual labs using Django.
- Worked on improving the efficiency and reliability of virtual lab systems.
- Developed a mathematical model simulation for the Single Board Heating System.
- Added an online quiz taking interface called yaksh.
- Implemented a centralized database in order to prevent data inconsistency.
- **Tools:** Python, Django, Scilab, Apache

PROJECTS

STOCK BRIDGE | Stock Market Simulator | Github | Website

Apr 2018

- Built the entire user-company transaction system from scratch.
- Implemented a formula so that the fluctuations in stock prices are completely automatic.
- Used signals, custom model managers, and custom querysets extensively.
- Used the concept of coefficient of variation as a tiebreaker for the leaderboard.
- Created a Bank model for the users to issue loan from and deduct interest from their loan amount accordingly.
- **Tools:** Python, Django, Django REST Framework, Bootstrap v4, chart.js
- **Services:** Amazon Web Services, Heroku, sendgrid

CODE WARRIOR | Online Judge Platform | Github | Website

Feb 2018 – Mar 2018

- Built the entire compilation, execution and submission evaluation module from scratch.
- Made the platform to support following languages: C, C++, Python 2, Python 3
- Used signals, custom model managers, and custom querysets extensively.
- Used user submission execution time as a tiebreaker for the leaderboard.
- **Tools:** Python, Django, Bootstrap v4
- **Services:** Amazon Web Services, sendgrid

ACHIEVEMENTS

SCHOLASTIC

DAAD-WISE Scholarship
Summer Research Internship in Germany, 2018

MITACS Scholarship
Summer Research Internship in Canada, 2018

10/10 grade
During 5th Semester | 3rd year, NIT Mizoram

Cleared TOEFL
Secured 102 marks out of 120

EXTRA-CURRICULAR

Joint Secretary
2018
Morphosis, annual technical fest of NIT Mizoram

School Captain
2013
Head of the Student Council at Spring Dale College

Basketball Tournament Winners
2013
Zonal Basketball Championship Tournament at Lucknow, U.P.

CONFERENCES / GIAN

SciPy India 2015
Conference on Python for Scientific Computing, FOSSEE, IIT Bombay

Deep Learning for Natural Language Processing
Dr. Benoit Favre, Aix-Marseille University, France, 2017

Natural Language Processing & Sentiment Analysis
Prof. Alexander Gelbukh, Instituto Politécnico Nacional, Mexico, 2016

PROJECTS (CONTINUED.)

KART | E-commerce Website | Github | Website
Dec 2017 – Jan 2018

- Built the backend on Django. Used jQuery to make the website asynchronous.
- Used signals, custom model managers and custom querysets extensively.
- Built the functionality to sell digital items by storing them in AWS S3 Storage.
- Render the order summary as a PDF and send it to the user after a successful transaction.
- **Tools:** Python, Django, Bootstrap v4, jQuery, Ajax, jsrender, chart.js
- **Services:** stripe, mailchimp, Amazon Web Services, heroku, sendgrid

AUTORANKING AMAZON REVIEWS | Machine Learning | Natural Language Processing | Github
Oct 2017

- Ranking the reviews on Amazon according to their helpfulness score.
- The problem was modeled as a regression problem. The performance was evaluated by using the coefficient of determination and rank correlation.
- Predictions were made based on various categories of features of the review text, and other metadata associated with the review, with the purpose of generating a rank for a given list of reviews.
- **Tools:** Python, Numpy, Pandas, textblob, scikit-learn

MORPHOSIS | Android Application | Github | Google Play Store
Mar 2017 – Apr 2017 | Aizawl, Mizoram

- Android App for the annual technical fest of NIT Mizoram
- Contains all the information of various events to be conducted during the technical fest.
- Contains a game called Scooby Dooby Doo which gives live leader-board updates.
- **Tools:** Java, Android Studio, Firebase

COURSEWORK

UNDERGRADUATE
Algorithms & Data Structures • Operating Systems • Database Management System • Computer Networks • Discrete Mathematics • Numerical Methods and Probability Theory • Computer Organization and Architecture • Theory of Computation • System Programming • Linear Algebra

ONLINE/MOOC

• Sequence Models
Coursera | deeplearning.ai | 2018
Grade: 100%

• Convolutional Neural Networks
Coursera | deeplearning.ai | 2018
Grade: 100%

• Structuring Machine Learning Projects
Coursera | deeplearning.ai | 2017
Grade: 100%

• Improving Deep Neural Networks
Coursera | deeplearning.ai | 2017
Grade: 100%

• Neural Networks and Deep Learning
Coursera | deeplearning.ai | 2017
Grade: 100%

• Introduction to Machine Learning
Coursera | Prof. Andrew Ng, Stanford University | 2016
Grade: 96.9%