Shantanu Acharya

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EDUCATION

NIT MIZORAM
B.tech in Computer Science and Engineering
Grad. July 2019 | Aizawl, India
CGPA: 9.69/10.0
Gold Medalist

SPRING DALE COLLEGE
Sr. Secondary School
Grad. May 2014 | Indira Nagar, Lucknow, India
Grade: 91.80%

SPRING DALE COLLEGE
Secondary School
Grad. May 2012 | Indira Nagar, Lucknow, India
Grade: 91.40%

SKILLS

Programming Languages
Python, C, C++, Javascript, Bash

Tools/Frameworks
Tensorflow, Keras, PyTorch, Django, ReactJS, Redux, jQuery, git, LaTeX MySQL

MOOCS

Extensive Vision AI
The School of AI | 2020
An exhaustive Deep Vision Program spread over three semester-style phases. Awarded with the Certificate of Excellence for being one of the top performers in the program.

Deep Learning Specialization
Coursera | deeplearning.ai | 2018
5 course specialization. Topics: Neural Networks and Deep Learning, Improving Deep Neural Networks, Structuring Machine Learning Projects, Convolutional Neural Networks, Sequence Models
Grade: 100% on all 5 courses

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

PUBLICATIONS

TOPIC-BASED IMAGE CAPTION GENERATION
Arabian Journal for Science and Engineering (AJSE) | Paper
Citation: (Dash, Acharya, Pakray, Das & Gelbukh, 3025-3034, 2020)

EVERY CHILD SHOULD HAVE PARENTS: A TAXONOMY REFINEMENT ALGORITHM BASED ON HYPERBOLIC TERM EMBEDDINGS
Association for Computational Linguistics (ACL) | Paper
5th June 2019
Citation: (Aly, Acharya, Ossa, Köhn, Biemann & Panchenko, 4811-4817, 2019)

EXPERIENCE

SIMBO.AI | Artificial General Intelligence Software Engineer
June 2019 – Present | Bengaluru, India
- Adapted to variety of domains such as Deep Learning, Full Stack Development and Linux Server Administration.
- Executed several projects and was responsible for the complete end-to-end project pipeline.

UNIVERSITÄT HAMBURG | Research Intern | Github
June 2018 – August, 2018 | Hamburg, Germany
- Developed a model to improve an existing taxonomy using distributional semantics. Devised a clustering mechanism to cluster nodes in taxonomy using similarity scores calculated with the help of different word embeddings.
- Ensured the model to achieve state-of-the-art results for English language with significant improvements over existing methods.
- **Tools:** Python

IIT BOMBAY | Engineering Intern | Github
June 2017 – July 2017 | Mumbai, India
- Developed a virtual simulation for the Single Board Heating System (SBHS) which allows students from all over India to access sophisticated lab infrastructure online.
- **Tools:** Python, Django, Scilab, Apache.

PROJECTS

TENSORNET | Deep Learning | Github | PyPI
Mar 2020 - Present
- Developed a high-level deep learning library on top of PyTorch.
- Used modularization and OOP concepts extensively to maintain a clean and understandable codebase.
- **Tools:** Python, PyTorch, NumPy, Pillow.

TOPIC BASED IMAGE CAPTIONING | Deep Learning | Github
Oct 2018 - May 2019
- Developed a novel image captioning model using CNNs and LSTMs.
- Created a system where LSTMs were given additional information (topics) extracted from image captions using Latent Dirichlet Allocation (LDA).
- **Tools:** Python, Tensoflow-Keras, NLTK, OpenCV-Python, MSCOCO-2017 Dataset.

AWARDS & HONORS

SCHOLASTIC

Gold Medalist - NIT Mizoram
Graduated as the Gold Medalist. Got awarded with two gold medals for:
• Overall highest academic performance.
• Highest academic performance in branch Computer Science and Engineering.

DAAD-WISE Scholarship
Selected for Research Internship at Germany in 2018

MITACS Scholarship
Selected for Research Internship at Canada in 2018

EXTRA-CURRICULAR

Secretary
2019
At Morphosis, the 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.

PROJECTS (CONTINUED.)

STOCK BRIDGE | Stock Market Simulator | Github | Website
Apr 2018
- Loaded the platform with real-world stock market features such as taking loans from bank, scheduling future transactions e.t.c.
- Extensive usage of django signals, model managers and custom querysets.
- **Tools:** Python, Django, Django REST Framework, chart.js, Bootstrap v4.
- **Services:** Heroku, sendgrid.

CODE WARRIOR | Online Judge Platform | Github
Feb 2018 – Mar 2018
- Designed the platform to support languages: C, C++, and Python.
- Constructed a tiebreaker mechanism which uses user submission execution time for ranking users with the same score in the leaderboard.
- **Tools:** Python, Django, Bootstrap v4.
- **Services:** Amazon Web Services, PythonAnywhere, sendgrid.

KART | E-commerce Website | Github | Website
Dec 2017 – Jan 2018
- Built the backend on entirely on Django. Utilized jQuery to make the website asynchronous.
- Developed features like checkout with online payment, send order receipt via email, selling digital items e.t.c.
- **Tools:** Python, Django, Bootstrap v4, jQuery, Ajax, chart.js, jsrender.
- **Services:** stripe, mailchimp, Amazon Web Services, heroku, sendgrid.

AUTORANKING AMAZON REVIEWS | Machine Learning | Natural Language Processing | Github
Oct 2017
- Created a model which can rank reviews on Amazon on the basis of their helpfulness.
- 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.