Pratham Arora

Roll No.:170102078
B.Tech - Electronics and Communication Engineering
Minor in Computer Science and Engineering
Indian Institute of Technology, Guwahati

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Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. Major	Indian Institute of Technology, Guwahati	8.69 (Current)	2017-Present
B.Tech. Minor	Indian Institute of Technology, Guwahati	8.80	2018-Present
Senior Secondary	CBSE Board	94.0%	2017
Secondary	CBSE Board	10.0	2015

Experience

- **Intern at Samsung R&D Institute, Bangalore** May 2020 - Jul 2020
  Samsung Neural Acceleration Platform (SNAP) Team Bangalore
  – Imitated a deep learning **Mobilenet V2** model's performance by injecting its knowledge using proxy data
  – Observed an accuracy of **62 percent** in data prediction and performance by reducing the **cross entropy loss**
  – Enhanced **adaptability** of the device by **10 percent** yielding an upgraded **user friendly** model

- **Intern at Computational Vision and Fuzzy Systems Lab** May 2019 - Jul 2019
  Prof. Frank Rhee, Dept. of ECE, Hanyang University, South Korea Republic of Korea
  – Developed a modified approach for **data granulation** using FCM clustering and secondary information granules
  – Implemented the granular clustering algorithm using MATLAB on **synthetic data set** with **500 2-D data points**
  – Reduced the time complexity by an average of **34 percent** for searching a data query in large datasets

Projects

- **Codeforces Problem Recommender** Aug 2020 - Sept 2020
  Github |cfprobrecom.byethost8.com
  – Analyzed single user profile statistics and displayed performance in previous **5 contests** given by the user
  – Provided personalised **problem recommendations** based on user's current rating using the codeforces API

- **Principal Component Analysis** Nov 2019
  Dr. Ribhu, Course Project |Github
  – Developed a robust and reliable **dimensionality reduction** and **data visualization toolkit** in MATLAB
  – Implemented expectation maximization for PPCA and explored probabilistic linear models like PPCA and PCA

Technical Skills

- **Programming**: C/C++, Python*
- **Miscellaneous**: HTML, CSS, JavaScript*, MATLAB, Octave ** Elementary proficiency*

Key courses taken

– Data Structures and Algorithms
– Operating System & Networks
– Theoretical Foundations of Computer Science
– Software Engineering
– Digital Logic and Computer Architecture
– Probability and Random Processes

Achievements

- **Department Rank 6** (Top **7.5%**) in Electronics and Communication Engineering
- **Secured 5th rank in NITK CodeSprint,** D2C (OHF) among more than 4000 participants

Positions of Responsibility

- **Branch Representative,** Cepstrum (EEE student body), IIT Guwahati Apr 2019 - Present
  – Organized several events like insight lectures and managed to help branch mates by catering to a large audience
  – Worked as a POC between students and professors & handled several initiatives like paperman, easy labs etc.

Extracurriculars

- **Saathi Club Mentor**: Mentored **8 first-year students** as an initiative by the Saathi Club
- **Technothlon City representative**: Helped in successful conduction of Technothlon 2018