# Bhanu Prakash Reddy Guda

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## EDUCATION

**Indian Institute of Technology**, Kharagpur, West Bengal, India
*B.Tech(Honors)*, Computer Science and Engineering (Pursuing) **July 2019**

- Cummulative GPA: 9.64/10
- Rank: 2/60

**Sri Chaitanya Junior College**, Vijayawada, Andhra Pradesh, India
Board of Intermediate Education Andhra Pradesh (Class 12) **July 2015**

- 98.2%

**Gowtham Concept School**, Gudiwada, Andhra Pradesh, India
Central Board of Secondary Education (Class 10) **July 2013**

- Cummulative GPA: 10/10

## RESEARCH INTERESTS

Machine Learning, Natural Language Processing, Computer Vision

## PUBLICATIONS

**"Stuck? No Worries!": Task-aware Command Recommendation and Proactive Help for Analysts**
Aadhavan M. Nambhi, *Bhanu P. Reddy*, Aarsh Prakash Agarwal, Gaurav Verma, Harvineet Singh, Iftikhar Ahamath Burhanuddin ACM IUI 2019, Submitted.

## RESEARCH EXPERIENCE

**Adobe Research Lab**, Bangalore, India
Mentor: *Dr. Iftikhar Ahamath Burhanuddin* **May, 2018 - July, 2018**
Developed a tool to automatically predict the next action based on the task using modified vanilla LSTM model. The tasks are identified using Biterm Topic Model and fed as input to LSTM model for next action prediction. The novelty in our work is to mathematically define a task and transfer the concepts of NLP to suit our problem statement which is in the domain of HCI. This tool was able to beat the state-of-art literature on next action prediction. Finally, we have exported this tool to a chrome extension that captures the usage data and help the user through next action to be performed in case our model predicts that the user is in need of help.

## KEY PROJECTS

**Automatic detection of damaging edits in Wikipedia**
Mentor: *Prof. Animesh Mukherjee* **January, 2018 - Present**
Working on computing the probability of damage that can be caused to the articles on Online Knowledge Repositories such as Wikipedia by the edits made by users. Developed a model to classify the edit as damaging or not using LIWC features. Worked with various neural network based approaches such as RNN, BiLSTM, Character based BiLSTM models to compute the probability of an edit being reverted. Currently, extending our model which is page specific, to an aggregate model by incorporating the topic information of the page.

**Human Emotion Detection From Typing on Smart Phones**
Mentor: *Prof. Saptarshi Ghosh* **July, 2018 - November, 2018**
Analyzed the typing data collected by monitoring the typing activities of users as they performed different activities from different users. Inferred emotion using this data and proposed an aggregate model instead of a personalized one to determine emotion. Proposed a Multi-Task Learning based approach to detect specific group of emotions that are more easily detectable. Classified the typing data into four emotions Happy, Relaxed, Sad, Stressed.

**COMPETITIONS**

**Samsung Smartathon 2017**, Delhi, India **December, 2018**

Participated in Samsung Smartathon, a one-day hackathon hosted by Samsung R&D Institute India - Delhi. Developed a deep learning based tool using YOLO architecture to classify the objects present in an image into the PASCAL classes. To make our model unique, we have pipelined the output of this classifier to predict the gender and age, if the predicted class is a person. For our scintillating idea of pipelining and implementing end-to-end application, we were awarded with second prize in the competition.

**COURSE PROJECTS**

- **File Transfer Protocol**
  Mentor: *Prof. Sandip Chakraborty* **January, 2018 - April, 2018**
  Modified the IP, TCP and Application layers of network protocol and implemented a server client model for concurrent transfer of files, messaging, internal chatting.
- **Smart Mess Management System**
  Mentor: *Prof. Shamik Sural* **January, 2018 - April, 2018**
  Developed an online portal and android application for Smart Mess Management using MySQL, SQLite, HTML, PHP and Android Studio.

**RELEVANT COURSES**

Artificial Intelligence, Machine Learning, Speech & Natural Language Processing, Social Computing, Probability and Statistics, Matrix Algebra, Image Processing, Computer Networks, Operating Systems, Database Management Systems, Compilers, Computer Organization and Architecture, Theory of Computation, Software Engineering, Switching Circuits and Logic Design

**TECHNICAL SKILLS**

**Languages**: C, C++, Java, Python, LaTeX.
**Software**: SolidWorks, Visual Studio, Android Studio.
**Platforms**: Windows, Linux, Git.

**HONOURS AND AWARDS**

- Received excellent grade in all subjects and hence scored a Perfect 10 in Second and Sixth Semesters.
- Currently ranked second among the undergraduates of Computer Science department.
- Awarded Certificate for Academic Excellence by the Computer Science department twice, at the end of sixth and seventh semesters.
- Ranked top 0.12% in JEE Advanced 2015 with an All India Rank of 267 out of 2,24,000 candidates.
- Ranked top 0.018% in JEE Mains B.Tech 2015 with an All India Rank of 233 out of 1,304,495 candidates.
- Secured All India Rank 11 in JEE Mains B.Arch 2015 out of 1,304,495 candidates.
- Secured State Rank 44 among 0.13 Million students in Telangana EAMCET 2015.

**EXTRA CURRICULAR ACTIVITIES**

- **Student Mentor**
  Mentoring 5 sub juniors in their academic and holistic development as a part of Student Mentor Program at IIT Kharagpur. Chosen by the Dean of Student Affairs, IIT Kharagpur.
- **Student Tutor**
  Worked as a tutor for Programming and Data Structures course organised by Student Welfare Group IIT Kharagpur.
- **National Service Scheme**
  Member of National Service Scheme, IIT Kharagpur and performed various social activities around IIT Kharagpur.

**REFERENCES**

Available on request.