## Praneeth Gubbala

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#### **EMPLOYMENT**

## **Senior Machine Learning Scientist**

#### **Walmart Labs**

June 2020-Present

• Developed a transformer model architecture to recognize the multiple (1-10) products and its facets through entity extraction and linking for Walmart's voice re-order system. Multi-Head Attention, XLNET, GPT-2, Roberta, Distil Bert, Hugging Face.

**Speaker Talk**: Walmart Data Science Community of Practice 2020 GURU Platform: Conversational AI as a Service

Remote July 21, 2020

### **Applied Scientist III - NLP**

#### **Walmart Labs**

Jul 2018- May 2020

- Implemented an Active learning system to automatically select the training examples from the pool of live user utterances to improve the text classification system performance by 5-7 % in Walmart Scale. Online Learning, Vowpal Wabbit.
- Deployed dynamic English and Spanish named entity extraction model training and Optimization to enable selfservice entity extraction models training in Guru Platform for Walmart US, International, Sam's Club US. Autoencoder Language model Google BERT, Conversational Representations from Transformers, GPU, Sequence to Sequence, A/B Testing.
- Built Intent determination models to predict the utterance skill by above 98% F1 score in Ask Sam English,
   Spanish Conversational AI. Deep Neural Networks, Transformers, TensorFlow, Predictive Modeling.

Patent: U.S. 62,840,991: "Systems for processing information requests of retail facility workers (Ask Sam)."

Invited Speaker Talk: Rasa Developer Summit 2019

San Francisco, California

Conversational AI in Walmart Natural Language Processing

Sept 24, 2019

# **Senior Machine Learning Engineer**

**Samsung Research** 

Feb 2016-Dec 2016

**Intelligent Services** 

Spot Award – October 2016

• Improved Bixby NLU latency for some utterances by 60% by implementing a decision-making model to predict the context switch between In-Domains like Call, SMS, and out-Domains like wolfram alpha, web search.

## **Machine Learning Engineer**

Samsung Research

July 2014-Jan 2016

Bixby NLP Research

Employee of the Month – January 2015

- Built the multiple versions of Bixby English, Spanish intent classification models (in Bixby of Galaxy S6, S7, S8
  mobiles), named entity recognition models using supervised machine learning model algorithms Bi-LSTM,
  Neural networks, SVM, conditional random filed
- Predicted the new intents to virtual assistant from the pool of unlabeled big data logs using the k-means clustering algorithm to improve Query Understanding performance by 6-8 %.
- Implemented contacts ranking system on name disambiguation list to enable the Bixby hand free auto-calling.

### **Graduate Research Assistant**

# **NLP Lab, Stony Brook University**

Jan 2017-Dec 2017

• **PrIA (Privacy-Focused Intelligent Assistant):** Developed an intelligent privacy system that predicts user personality by entity-based sentiment analysis using their private data under the guidance of Prof. Niranjan Balasubramanian. Deep Learning sentiment analysis, Fine-grained entity recognition, AFINN.

## **EDUCATION**

## **Stony Brook University**

Stony Brook, NY

Jan 2017-May 2018

Master of Science in Computer Science

Winner of Bloomberg Code Con-SBU 2017

- Open Source Contributor: Rasa Open Source

**Osmania University** 

Hyderabad, India

Oct 2010-May 2014

Bachelor of Engineering in Computer Science

National Merit Scholar (2010-14)

### LANGUAGES AND TECHNOLOGIES

- Python; Java; C++; C; NoSQL; MySQL; Shell Scripting; Klein; Kernel Programming; Databricks; Keras; Open CV.
- PyTorch; TensorFlow; Language modeling; Spacy; Azure; Cosmos Db; scikit-learn; Sklearn; AWS; Docker; Rasa.