

Stanford

Neha Konakalla

Masters Student in Computer Science, admitted Autumn 2019

Bio

BIO

AI | Mobile | Web | Speech | Software Developer

I am a highly self-motivated and enterprising third-year undergraduate student whose primary interests involve interdisciplinary research in artificial intelligence, linguistics, and psychology to help individuals, especially those with special needs, improve their language and communication skills.

I have always been fascinated by linguistics, even at a young age. In the eighth grade, I was a championship finalist (top 10) in the Scripps National Spelling Bee out of 11 million students worldwide, after 5 years of hard work and dedication. Later on, in high school I began merging my interests in linguistics with artificial intelligence and psychiatry, developing and "bringing the heart" to innovative conversational technologies to improve the lives of individuals.

Over the past four years, I've been the creator and developer of BuddyBot, a voice-based AI trainer companion to improve conversational skills and socio-communicative ability in autistic individuals. On the psychiatric side, I've been a member of the Fung Lab (<http://med.stanford.edu/funglab.html>) at the Stanford Psychiatry and Behavioral Sciences Department since 2017 for human subjects research (data collection, clinical trials) to train and evaluate BuddyBot. BuddyBot has also been entered into the 4-year, \$5M IBM Watson Artificial Intelligence XPRIZE, and has been fortunate to have been selected among the top 30 out of 683 teams for Round 2 of the contest (<http://ai.xprize.org>). Additionally, in May 2019, BuddyBot was featured at the United Nations AI For Global Good Summit in Geneva, Switzerland.

--Technology Skills--

-Reinforcement Learning (q-learning, policy gradient learning)

-Machine Learning (K-means clustering, markov models, regression, classification)

-Deep Learning (artificial, convolutional, and recurrent neural networks)

-Natural Language Processing (semantic parsing, sentiment analysis, POS tagging, semantic similarity, information retrieval)

-Data Science (data scraping and collection, data structure and databases, exploratory data analysis and visualization, Bayesian statistics, regression methods, forecasting)

-Neo4j Graph Databases

-IBM Watson, IBM Cloud (Speech-to-text, Text-to-speech, Database Services, Unix Servers, Natural Language Processing, Data Science Experience)

-iOS Development (Xcode, Swift)

-Android Development (Android Studio, Java)

-Python Flask and Django Web Development

-Java Projects (computer games, reading smartphone sensor data)

-Arduino and Sensors

-3D Engineering Design (Autodesk Inventor)

--Programming Languages--

Python, C++, C, Swift, Java, HTML, SQL, Cypher