

Amal Babu

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EDUCATION

The University of Texas at Austin, Austin, TX

August 2020 - December 2023

Bachelor of Science, Computer Science

- GPA: 3.8
- Certificates: *Applied Statistical Modeling, Big Data, and Machine Learning and AI*
- Relevant Coursework: *Data Visualization, Neural Networks, Operating Systems, Data Science and Algorithms*

SKILLS

Programming Languages: Python, Java, C/C++, Javascript, HTML, CSS, R, ROS

Applications/Frameworks: Android Studio, Pytorch, Tensorflow, Keras, Huggingface, Spacy, Google Suite, Linux

Languages: Fluent English, Intermediate French, Intermediate Malayalam

EXPERIENCE

Colaberry Inc., Dallas, Texas

November 2021 - Present

Data Science Intern

- Worked as a crucial technical member of 3-person team to successfully deploy a brand-new NLP system in under a month for a startup focusing on teaching student's industry skills through artificial intelligence
- Deployed API onto company website to efficiently parse, clean, and identify insights on student transcripts using NLP techniques such as tokenization, lemmatization, part-of-speech tagging, and neural network architectures
- Deployed word cloud generator code on refactored.ai, serviced over 500 student transcripts
- Skills used: Python, Git, SQL, HTML, JavaScript

University of Texas Robotics, Austin, Texas

May 2021 – December 2021

Research Intern

- Refactored a motion synthesis style transfer model to be compatible with Virtual Reality data collection system in the UT Robotics Laboratory, trained with over 10,000 samples of motion capture video
- Tested autonomous navigation software on multiple robots in simulation
- Collected human motion data through Virtual Reality System through joint tracking
- Skills used: C/C++, Python, ROS, Maya

PROJECTS

- **Generalized Motion Synthesis for Multiple Avatars:** Research project that aims to realistically represent natural human motion in virtual reality. Generated 10 second clips of human walking motion from two 30-second motion capture videos.
Link to Project: https://drive.google.com/file/d/1SobQF_Wg7QJtP8OlcG8avzjKc029Wxnb/view
- **Robot Social Navigation Accommodating for Traffic:** Autonomous robot motion planning software that replaces the existing shortest path algorithm by taking into account traffic data
Link to Project: <https://drive.google.com/file/d/1dhPZ69HHfA4C8cC6P3HB-nNBiece8OPp/view>
- **CIRCLES:** A geocaching scavenger hunt mobile application that creates a unique scavenger hunt for each user locally. Won second place at Business Professionals of America national conference
- **More Projects:** Check out more projects on my personal website: <https://amalbabu12.github.io/>

LEADERSHIP & COMMUNITY INVOLVEMENT

Private Tutoring Service Frisco, Texas

May 2021 - Present

Lead Tutor

- Self-started tutoring service to help students get hands on education during COVID-19
- Taught students the basics of Java, including data types, object-oriented programming, and an introduction to data structures and algorithms
- Focus on creating self-sufficient students by promoting individual learning and teaching good study habits