

Aditya Sawant

Graduate Student, University of Texas at Austin

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EDUCATION

The University of Texas at Austin

Master of Science in Computer Science CGPA: 3.945

Indian Institute of Technology (IIT), Kharagpur

BTech in Computer Science & Engineering: CGPA: 9.62/10

Austin, Texas

Expected May 2023

West Bengal, India

July 2017 - June 2021

EXPERIENCE

Amazon Robotics

Software Development Engineer Intern

Boston, Massachusetts

May 2022 - August 2022

- Developed a MiniHDT package in C to send TCP packets to the MCU on the Scout bot for controlling the Actuators and Ultrasonic sensors. This package ran a TCP server to accept connections from multiple client nodes.
- Created an Actuator service to send TCP messages to MiniHDT to move the Scout forward, in reverse, turn left etc.
- Implemented code to orchestrate the Ultrasonic service and Actuator service to make the Scout stop on detecting obstacles.

University of Texas at Austin

Graduate Teaching Assistant

Austin, Texas

Jan 2022 - present

- Served as the Teaching Assistant for the course Algorithms, Theory and Techniques in Spring 2022.
- Currently serving as the Teaching Assistant for Elements of Software Engineering 1. Responsibilities include conducting weekly office hours, grading assignments, proctoring tests and handling course logistics.

TU Braunschweig, Germany

Research Intern | Guide: Prof. Sándor Fekete

Remote

May 2020 - July 2020

- Geometric Packing - Squares into Disks:** Worked on proving NP-hardness of packing given squares into a disc by a reduction from 3-PARTITION. Determined the dimensions of Framing squares.
- Created illustrations using the Ipe extensible drawing editor. Introduced the concept of free move to facilitate the proof. Showed the uniqueness of packing the Framing Squares into a unit disc central to the required proof.

Tangentia

Intern - RPA Development & explored IBM Cloud Services

Goa, India

May 2019 - June 2019

- Indian Outfit Recognizer:** Used the IBM Cloud Watson Studio along with its Visual Recognition Service to build an Outfit Recognizer Model which was able to classify Indian clothes into classes such as Kurtas, Sherwanis, Sarees, Lehngas etc.
- Flower Retailer Chatbot:** Used the Watson Assistant service to build a Chatbot for a flower retailer which is capable of answering questions related to locations and timings of stores and can also recommend flowers for an occasion.

PROJECTS

Generative Models for Dialogue Systems | Bachelor's Project

Sept '20 - May '21

Guide: Prof. Pawan Goyal

- Implemented a seq2seq model with a Bidirectional GRU Encoder and a GRU Decoder with global attention.
- Implemented MultiHeadAttention with Model subclassing and a Transformer with Functional API.
- Used the BookCorpus dataset for pretraining the models and Daily Dialog dataset for training and testing.

Online Food Ordering App | Database Management Systems Term Project

Jan'20 - April'20

Guide: Prof. Shamik Sural

- Developed an Online Food Ordering App using Android Studio, MySQL database system and hosted the database on a WAMP server.
- Users can login, sign up, view their order history and status, order items and view selected items in the cart.

University Department Information System | Software Engineering Term Project

Jan'19 - April'19

Guide: Prof. Sudip Misra

- Created a desktop based application that helps the Department Secretary manage the department information. An SRS for the same was also created. Appropriate Use Case and Sequence diagrams were created.
- Various use cases like Student Semester Registration, Account Management, GPA Calculation, Course Information, Inventory Management, Instructor Information etc were implemented.
- MySQL Database was used which was hosted on a LAMP server and the application was coded in Java.

TECHNICAL SKILLS

- Languages:** C, C++, Java, Python, MySQL, CSS, JavaScript, SQL Plus, LaTeX, PHP, SQL, MIPS Instruction set, Verilog
- Technologies:** GitHub, UiPath, IBM Cloud, Android Studio, Netbeans, SolidWorks, Ipe
- Libraries and Frameworks:** Open CV, NumPy, Pandas, Scikit-learn, Matplotlib, TensorFlow, Keras, PyTorch