Mohamed Shamir

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EDUCATION

IIT Gandhinagar **Gujarat, India**

Btech Dual Major in Computer Science and Mechanical Engineering *2017- 2022*

- CPI: 7.73 / 10
- Course Work: Data Structures and Algorithms, Computer Networks, Natural Language Processing, Digital Systems, Mechatronics, Manufacturing Processes, Fluid Dynamics, Heat and Mass Transfer, and Thermodynamics.

WORK EXPERIENCE

Strautx Technologies Pvt Ltd **Ahmedabad, Gujarat**

R&D Internship *May 2019 - July 2019*

- Developed a computational model of Free Piston Stirling to design the basic geometrical parameters of the engine.
- Calculated the work done and the efficiency of the engine to optimize the performance of the engine according to the change in variables.

PROJECTS

MiniTwitter Program using Socket Programming *Oct 2020 - Nov 2020*

- Developed server and client programs for mini-twitter with basic functionalities of twitter.
- Supported features like Creating an account, Log in and Log out, Posting a tweet, Following a user, Viewing Feeds, Retweeting, Chatting, Searching for People, Finding the users which are online and who you follow.
- Tested the client and server program on a mininet topology.

Python Based Verilog Code Generator *Oct 2020 - Nov 2020*

- Created a flask application which could take inputs from users and generate verilog design modules and test modules.
- Generated verilog code for different types of counters, registers and flip flops, arithmetic operations of floating point arithmetic unit using IEEE-754 format of floating point representation, More and Mealy Finite State Machines(FSMs).
- Deployed the developed application on Heroku Platform.

Review Based Movie Recommendation Sept 2020 - Nov 2020

- Predicted Ratings of a movie for a particular user using the reviews written by the user for other movies and the reviews written for this particular movie by all the other users.
- Trained the model using Amazon Movies and TV shows Dataset which has over 1 million reviews for around 150,000 titles.
- Obtained a Mean Squared Error of 1.02 which is close to the State-of-the-art model which had an MSE of 0.802.

Estimation of Friction Weld properties using Machine Learning Jun 2020 - Jul 2020

- Used Machine Learning algorithms like the random forest, decision tree, gradient boosting regressor to predict the tool profile after frictional welding.
- Obtained an R2 score of 0.91 on unseen data.

LEADERSHIP EXPERIENCE

ProCase, *Group Lead* *June 2020 - July 2020*

- Lead a team of 10 students in developing a website platform where students can showcase their project's live demo.
- The website can be accessed using this Link.

SKILLS & INTERESTS

Skills: Python, C, flask, Numpy, Pandas, Keras, Autodesk Inventor, Ansys, Star CCM+, Matlab

Interests: Travelling, Playing Guitar, Playing Chess.