

Fauzaan Qureshi

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EDUCATION

B.E. Civil Engineering

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI

Pilani, Rajasthan | Jun 2021

SKILLS

Technical: Python, Flask, REST API, HTML5, JavaScript, JQuery, AWS Lambda, Django, Git, SQL, Keras Tensorflow, PyTorch, Convolutional NN, Reinforcement Learning, Web Scraping, MongoDB, DynamoDB, C++, Java, C, Android

Soft: Critical thinking, Ownership, Unambiguous communication, Time management, Accountability, Adaptability, Curiosity

WORK EXPERIENCE

Q3 TECHNOLOGIES | JUNIOR SOFTWARE ENGINEER

Gurugram, HR | June 2021 – Present

- Designed and implemented a Customer Management Portal using **Python Flask** for easy and intuitive management of customers and orders, used by **150+ employees** of Client.
- Suggested and implemented token based authentication to log into Customer Management Portal from the Client's main Management Portal, **saving** employees over **15+ minutes each day**.
- Took initiative to debug and fix problems in 4+ time-critical Python projects of other teams and got 2 Appreciation awards in a span of 4 months by the CTO.

PROCESS9 | SOFTWARE DEVELOPMENT INTERN

Gurugram, HR | Feb 2021 - May 2021

- Processed an input video file to extract raw audio input stream using pydub and wave and fed it to Google Cloud API for speech-to-text conversion.
- Contributed to open-source by fixing a bug in the Gradio video input element.
- Formatted the recieved output from Google Cloud API into an srt file and made it available for download using Gradio.
- Took initiative to debug and fix an in-organization utility, written in C, **increasing productivity** of NLP team of **14 members**.

PROJECTS

MUSIC ENGINE PYTHON, JAVA, INTER-PROCESS COMMUNICATION, OBJECT-ORIENTED DESIGN, SUBPROCESS, PIPES

An algorithm to generate rhythm and melodies. Implements various OOP concepts like inheritance, abstraction, encapsulation and polymorphism in Python.

Communicates in a structured format with a Java subprocess using pipes to utilize its MIDI libraries.

AI CLASSICAL MUSICIAN PYTHON, PYTORCH, KERAS TENSORFLOW, PANDAS, GAN, ATTENTION

Implemented different models to compare and analyse the ability to continue a given input melody.

Best performance: Attention model - **7 seconds**, Worst performance: GAN model - **0-1 seconds**, Other models: GRU DRNN - **2 seconds**, Associated GRU - **4 seconds**.

DEEP Q-LEARNING PYTHON, KERAS TENSORFLOW, NUMPY, MATPLOTLIB, CNN

An light-weight implementation of DeepMind's [Playing Atari with Deep Reinforcement Learning](#) paper. Achieved scores in range of **62%** of DeepMind's AI scores.

TRADE BOT SIMULATOR PYTHON, WEB-SCRAPPING, MULTIPROCESSING

A simulated trading environment where users can create a bot to trade on different stocks, with configurable initial parameters. The bots receive real-time market data and take trading decisions based on Fibonacci-weighted and heuristics averaging.

MIDI-SYNTHESIZER JAVA, C

Simple POC for C integration in Java. Maps MIDI notes to keyboard and plays them on keypress without waiting for carriage return, using getch from C.