



Gaurav Shilpakar

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EDUCATION

Texas Tech University, Lubbock, Texas
Bachelor of Science in Computer Engineering
Minor in Mathematics/Computer Science

Graduation May 2021
GPA: 3.79

EXPERIENCES

Academic Tutor, Lubbock, Texas 01/2020 – Present

- Tutor students with coursework related to the subject Discrete-Time Signals and Systems
- Assist students with their written assignments, homework, quizzes and tests

MineAI, Lubbock, Texas 01/2020 – Present

- Create and Deploy instances of Python program to run subprocess of machine learning applications
- Utilize Google Cloud Platform to create instances on Debian Linux Systems

Research Intern, ULabs Makerspace, Lubbock, Texas 12/2019 – Present

- Conduct research on existing technologies, and integrate strategies in compliance with HIPAA Policies
- Address customer privacy concerns and database management for running an online medical portal
- Present weekly updates through written reports including necessary budget expenditures and updates

PROJECTS

Music Genre Identification 01/2020 – Present

- Decompose music properties using MFCC mapping, use of NumPy and Seaborn for data visualization
- Train a Neural Network dependent on music datasets accumulated from the web
- Present accumulated data about the music through an interactive android application
- Technologies: Raspberry Pi, Python, Flutter, TensorFlow 2, and AWS Sagemaker for cloud deployment

Point of Sale System 01/2020 – Present

- Use of Agile Development principles to create an Interactive Point of Sale System with numerous use-cases
- Build clear and concise documentation for easier customer implementation
- Technologies: Java, ElectronJS, MongoDB, GIT

Phasor Measurement Unit 09/2019 – 12/2019

- Designed and built a two-phase AC analysis unit controlled by a microcontroller (MSP430)
- Extracted relevant data (voltage, current, frequency), performed phase and amplitude calculations and fed it to MySQL database at a rate of 1200 points per second through LabVIEW
- Technologies: MySQL, LabVIEW, HTML, CSS, PHP, GUI for displaying the collected data

Autonomous Mail Delivery Robot 02/2019 – 05/2019

- Built an autonomous line tracking mail delivery robot using BASYS 3 FPGA Board
- Assembled an amplifier circuit for the IR Sensor using LM324 and cleaned the IR square waves using LM339
- Implemented a State Machine for the various modules of the bot while working under prominent engineering issues involving budget limitations, team coordination, reporting and management

SKILLS/AWARDS

Languages
Java, Python, C++
MATLAB, Verilog
HTML, CSS, JavaScript
PHP, MySQL

Technologies
Linux Subsystem, Flask
LTSpice, Eagle CAD
LabVIEW, Jupyter
Git, VSCode, JetBrains
Adobe Suite, MongoDB

Awards
ECE Department Scholarship
Presidential Scholarship
President's List
Dean's List