Saurav Singh

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EXPERIENCE

RESILIENCE | SOFTWARE ENGINEER INTERN
December 2020 – Present | Remote
- Conduct research and develop a speech to emotion detection feature for an audio exercise app
- Implemented a model for emotion detection with an accuracy of 60% and currently in process of improving the accuracy and porting it to the mobile app

BENTLEY SYSTEMS | SOFTWARE ENGINEER INTERN
April 2019 – September 2019 | Philadelphia, PA
- Developed and maintained an icon database web-app for the internal UX website using React and TypeScript
- Optimized the app by implementing lazy-loading component to smoothly handle over 8000 icons in an infinite-scroll view
- Wrote scripts by utilizing Microsoft Graph API to automate the deployment when new icons were added / modified
- Utilized Git for version control and Azure Devops for CI/CD and deployment

YPTC LLC | DATA VISUALIZATION CO-OP
April 2018 – September 2018 | Philadelphia, PA
- Designed and built interactive and real-time web-based dashboards utilizing Quickbooks API, D3.js and React
- Created custom visual plugins for Power BI using D3.js as required by the data visualization team
- Built a web-app to perform spatial analysis using clustering (K-Means and DBScan) on non-profit org. geolocation data

DREXEL UNIVERSITY | TEACHING ASSISTANT
September 2018 - June 2020 | Philadelphia, PA
- Courses: Python Programming, Web Development, GUI
- Conducted weekly labs and office hours to assist students with course materials and graded their coursework

PROJECTS

EZ CALL | FLUTTER, FLASK, WEBRTC, SOCKETIO
- Developed a peer-to-peer video call application using Flutter and WebRTC framework
- Created the backend server using Flask along with SocketIO for handling the signaling process

CHESS AI | HTML, CSS, JAVASCRIPT, PYTHON
- Created a chess AI engine using minimax algorithm with alpha-beta pruning
- http://sauravsingh.me/chess-engine-s2

MUSIC GENRE CLASSIFIER | PYTHON, TENSORFLOW, KERAS, LIBROSA
- Implemented a CNN model to classify 10 music genres and achieved accuracy of 70% using Python and Keras
- Preprocessed the raw audio data into MFCCs using Librosa

EDUCATION

DREXEL UNIVERSITY
BSc IN COMPUTER SCIENCE
GPA: 3.7
Philadelphia, PA
Graduation: June 2020

Concentrations
Artificial Intelligence
Human Computer Interaction

Activities
Nepali Student Association
Japanese Student Association

SKILLS

PROGRAMMING
Python, C++, JavaScript, TypeScript, Java, C#, Dart, HTML, CSS

FRAMEWORKS

Frontend
React, Redux, Flutter, D3, P5, Streamlit, Bootstrap, SASS

Backend
Express, Node, Flask, Socket, GraphQL, REST API

Machine Learning
Numpy, Pandas, Sklearn, Pytorch, ML5, TensorFlow, Keras

Database & Tools
SQL, Firebase, SQLite, Hive, AWS, Git, Bash,

INTERESTS

Fingerstyle Guitar
Photography
Travelling
Gaming
Soccer
Poker
Chess