

EMAD AHMED

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EMPLOYMENT

EVERTZ MICROSYSTEMS · Software Design Engineer · Fall 2016

- Independently developed and designed preview functionality to the Evertz FilePlayer by allowing users to seek to a specific point of a large file and buffering from that point using FFmpeg libraries, **C++** and **Qt**
- Reduced load time and optimised efficiency of database by only using database if the user has specified a point in the video they wish to seek to, therefore reducing the initial load on the database

TVR COMMUNICATIONS · Software Engineer · Winter 2016

- Reduced load time and database usage of the Channel Lineup page by **50%** through efficient database querying and caching with Hibernate
- Independently developed new module for TV product that allows deployment staff to release SQL scripts with metadata about hardware for new builds
- Added new sorting feature for channel lineup that orders channels by user preference based on hospital location and advertisers

PROJECTS

BOARDSCRIBE

Nov 2016 to Current

- Created online learning platform from scratch that allows users to take pictures of school notes and transforms them into markup that can be viewed by all members of a class
- Implemented and trained the model for the **Clarifai Image Recognition API** along with **Tesseract.js** to classify each letter in a picture which eventually converts to full sentences
- Built web application with **Python**, **Django** and **PostgreSQL** with features such as student login and permissions

FADEAWAYHOOPS

Oct 2016 to Current

- Developed and designed NBA Website with a focus on **Statistics** and **Machine Learning** to predict outcomes for the season
- Created with **Python**, **Django** and **PostgreSQL** in the backend and deployed using **Heroku** and **AWS S3**
- Implemented web-scraping functionality by using Python's **BeautifulSoup library** to display changing data such as NBA standings and scores

BLAZESMS

Oct 2016 to Current

- Created a patient management platform from scratch where patients can schedule Doctor's appointments via text message and administrators can view upcoming appointments
- Built with **Node.js**, **MongoDB** and the **Twilio API** for handling incoming text messages from patients and replying based on the outcome of the appointment request
- Created custom scheduling algorithm that detects conflicts with appointments and recommends other timings to patients if their requested time block is occupied

SKILLS

PROGRAMMING	Python, Java, C++, JavaScript, HTML/CSS, Android
TOOLS	Sublime/Atom, Git, Heroku, Npm, Linux, Ubuntu
LIBRARIES/Frameworks	Node.js, Qt, PostgreSQL, MongoDB, BeautifulSoup, Django, React

EDUCATION

2020	University of Waterloo BASc Systems Design Engineering
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INTERESTS