Emad Ahmed

2B Systems Design Engineering student

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Skills

- **Programming**/ Python, JavaScript, Java, C++
- **Web Development** / Node.js, React, Django, MongoDB, Reflux, Express, Bootstrap
- **Tools** / Git, Docker, Npm, AWS S3, BeautifulSoup, pandas, Qt, Passport.js

Experience

Summer 2017 Software Engineering Intern, 🔴 PiinPoint (Y Combinator W14)
- Architected reports feature including DB changes, back-end API (Python) and front-end (React)
- Integrated Points of Interest with routing APIs to obtain driving/walking distances from any location
- Implemented caching of third-party API responses, reducing page load times by an average of 2 s
- Built internal table library with React that supports pagination, search and sorting from any dataset
- Migrated all user-uploaded images from database to Amazon S3, cutting response time in half

Fall 2016 Software Design Engineer, *evertz* Evertz Microsystems
- Built preview feature of the Evertz FilePlayer (video player for digital replay) from scratch
- Optimized FilePlayer by using database only when users seek in a video, reducing bandwidth usage by 20%
- Integrated FilePlayer via JSON RPC to allow for compatibility with back-end APIs
- Revamped logging architecture to optimize workflows that slow performance

Winter 2016 Software Engineer, TVR Communications
- Reduced load time and database usage of Channel Lineup page by 50% through efficient querying and caching
- Implemented sorting feature to order channels based on consumer demographics
- Added cloning feature for channels across locations, reducing time to deploy new builds
- Built admin dashboard from scratch including back-end API to produce SQL scripts

Projects

What's the Menu – Node.js, Express, MongoDB, Google Maps API, Mongoose   *bit.ly/2xhFKPA*
- Displays crowd-sourced reviews on individual menu items at popular restaurants
- Built user authentication system from scratch and saved user's favorite food items using Passport.js
- Used Mongoose Virtual attributes to integrate reviews of stores with individual menu items
- Built with JavaScript ES6's latest features including Async/Await, destructuring and arrow functions

FadeawayHoops .com – Python, Django, PostgreSQL, scikit-learn, Heroku, S3   *bit.ly/2n0noNX*
- NBA Website with a focus on Statistics and Machine Learning
- Used K-Nearest Neighbors algorithm to predict points per game averages for NBA players
- Implemented web-scraping functionality using BeautifulSoup to display real-time data such as standings, stats and news

Education

2020 BASc in Systems Design Engineering, *University of Waterloo*
- Data Structures and Algorithms (Java/Python)
- Introduction to Programming (C++)

Interests

- Tech, Basketball, Working Out, Data Science, AI, Podcasts, Sports Media, Biology