YOAV ARBIV

✉ yoav.arbiv@gmail.com   📞 416-666-1841   ⭘ yarbiv   in yarbiv

+ EXPERIENCE

D2L | Software Developer
May 2019 - Aug. 2019

• Implemented a custom question generation algorithm using NLP with a success rate of 95%
• Leveraged React-Redux to create a PDF viewer and annotator using containers and components
• Designed a RESTful API with Express to serve and cache course materials and user-generated content
• Created an authenticated Flask microservice to process course content and return related questions
• Implemented microservice pattern in API design to increase endpoint performance by >100%
• Led database redesign to write cleaner CRUD operations and increase query speed by ~25%
• Wrote a test suite to facilitate validation of generated questions

North | Software Engineer
Sept. 2018 – Dec. 2018

• Developed proprietary protocol for Bluetooth mobile-to-smartglasses communication
• Designed prototype smartglasses experiences using the Model–View–Viewmodel pattern
• Resolved an issue in the glasses rendering pipeline, increasing frame refresh rate by >90%
• Built infrastructure using Cookiecutter to rapidly kickstart new prototype projects
• Implemented inter-process communication with Binder and Parcel frameworks
• Created predictive machine learning models from experimental image and audio data

Extreme Networks | Software Tester
Jan. 2018 – Apr. 2018

• Wrote automated API test cases using Postman to validate internal RESTful API
• Authored hardware performance report to be referenced in marketing, certified by the Wi-Fi Alliance

+ TECHNOLOGIES

Languages
JavaScript, TypeScript, Python, C++, Asm (RISC-V)

Frameworks
React, Redux, Node.js, Express, MongoDB, Mongoose, Flask, SpaCy, NLTK, Qt, Android NDK

Tools
Git, Heroku, Travis, Bash, CMake

+ PROJECTS

MusicalAnalysis | Python, React

• Analyzes lyrical models to visualize lyrical sentiment, lexical diversity, and vocabulary depth
• Determines musical emotion (sadness, anger, happiness) from quantitative audio features
• Preprocesses lyrics, removing stopwords, punctuation, etc. with natural language processing

LyricBot | Python

• Scrapes Genius.com for all lyrics from a given artist to create a model
• Runs TensorFlow character-based recurrent neural network to write tweets
• Tweets are based off the lyrical model and attempt to emulate the artist's lyrical style

+ EDUCATION

University of Waterloo
2017 - 2022 | 3.9 GPA

BASc, Honors Computer Engineering