JOHN JACK LEWIS

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EXPERIENCE

Associate Software Engineer (Full Stack Engineer), H&R Block

📅 May 2021 – Present 📍 Kansas City, MO (Remote)

- Lead Developer on Company Imperative: Practice Mode
    - Designed sandbox training environment using **Angular (TypeScript)** and **.NET/C#** within our Work Center application for newly hired tax professionals
    - Reduced front-end development time by 45% by building an automated application to align changes in separate, independent projects
- Primary Developer on Company Imperative: MeF Attachment
    - Integrated full-stack functionality across 9 company teams for uploading MeF Attachments within a 20-day timeline
    - Built Azure Function App using **.NET/C#** and introduced novel functionality to our RESTful API and Event Consumer and Producer

REU in Consumer Networking Technologies, University of Missouri

📅 May 2020 – July 2020 📍 Columbia, MO (Remote)

- Designed and implemented novel multimodal deep learning network achieving 62% accuracy in deepfake detection using **Python**
- [Published](#) and presented research at IEEE AIPR 2020: Trusted Computing, Privacy, and Securing Multimedia
- Processed 478 GB of videos from the Facebook Deepfake Detection Challenge using Python, OpenCV, and PyTorch

Programming Team Member, Florida Southern College

📅 September 2018 – May 2021 📍 Lakeland, FL

- Competed in the 2018 and 2019 ACM ICPC Southeast USA Regional Programming Contests; placed 2nd at competition site (2019)
- Explained and optimized solutions through collaborative demonstration in weekly programming competitions, programming primarily in **Java** and **Python**

SOFTWARE PROJECTS

Film Revenue Predictor 🎬 **Furiosa**
- Developed an end-to-end data science application for predicting revenue for films from the 2010s using **Python**
- Improved R^2 values by 15% when compared to strict baseline metadata by introducing the popularity metric of a YouTube trailer as an input parameter
- Created dataset using TMDB API and YouTube Data API

Film Genre Prediction 🎬 **Magical Movie Poster Processing**
- Built deep convolutional neural networks to predict genres of a film based solely on an image of the film poster using **Python**, **TensorFlow**, and **Keras**
- Achieved 96% overall prediction accuracy and 42% fully correct prediction accuracy for multi-label classification of genres by implementing transfer learning with the *NasNetLarge*, *InceptionResNetV2*, and *XceptionNet* models

Hypertriviation Web Trivia 🎬 **Hypertriviation**
- Designing a full-stack web application with **React (TypeScript)** and **Django (Python)** allowing users to compete in real-time user-generated trivia games using web sockets and the Spotify Web API

EDUCATION

Florida Southern College, May 2021

B.S. in Computer Science, B.S. in Applied Mathematics

Honors Program GPA: 4.0/4.0

Relevant Coursework:

- Machine Learning
- Software Engineering
- Analysis of Algorithms
- Problem Solving in CS
- Data Structures
- Database Management Systems

SKILLS

Languages:
C#, Python, JavaScript/TypeScript, Java, SQL, MySQL, HTML, CSS

Technologies & Frameworks:
Angular, .NET, Azure, React, TensorFlow, Keras, Django, sci-kit learn, Pandas, Linux, Git/GitHub, PyTorch, Vue, React