Roberto Leon-Luna

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WORK EXPERIENCE

Viacom – Broadcast Systems Development   June 2018-August 2018
Software Engineer Intern   New York, NY
- Developed a 4K video encoder written in C++ that converted YUV video files into 4K video files using the x265 software library
- Tested encoder on Trident play-out system to benchmark FPS that servers achieve using various encoder presets
- Presented test results to broadcast systems team and recommended that Viacom is not in a position to implement a 4K video encoder into their play-out system

University of Michigan – Haptix Lab   January 2016-September 2016
Research Assistant for Ph.D. candidate Alex Russomanno   Ann Arbor, MI
- Fabricated silicon refreshable braille displays using clean room technologies for use in testing
- Developed Arduino tool that analyzed the brightness of video clips to measure the response time of micro fluidic logic gates to air pressure fluctuations
- Optimized the response time of micro fluidic logic channels through testing with transducer and air gun

SKILLS

Languages:	*Frameworks:*	*Databases:*
C++, Python, JavaScript	React, Vue.js, Flask, Apple AR Kit	MongoDB, SQL, Firebase

ADDITIONAL EXPERIENCE

Mobile App Development   January 2020-April 2020
Augmented Reality iOS App for Art
- Designed, built, and tested an iOS mobile application using Swift, Apple AR Kit, and Firebase that allowed users to display multiple art pieces through an augmented reality view
- Performed customer research and design iteration in order to determine the UI layout and the back-end design
- Prepared and presented several presentations throughout the semester on the progress of the mobile application, design decisions for the mobile application, and customer research

Web Development   September 2019-December 2019
Instagram Web App
- Developed a clone of the Instagram web app using Flask, SQL, and React
- Used Flask and SQL to build the back-end technology such as the database, URL routes, and REST API
- Used React, HTML, and CSS to build client-side features that updated the front-end based on user input

Information Retrieval
- Used a Hadoop map reduce pipeline to process information and create an inverted index
- Created a search interface using React that queried results from PageRank API and displayed them to the user

EDUCATION

University of Michigan College of Engineering   **Class of 2020**
BSE in Computer Science   Ann Arbor, MI

Universidad de Navarra @ TECNUN   May 2016-July 2016
Micro-robotics & Spanish industries study abroad program   San Sebastián, Spain/Pamplona, Spain

LINKS
GitHub: https://github.com/bertleon
LinkedIn: https://www.linkedin.com/in/roberto-leon-luna-707953104/