Ricardo Elias Roche

EDUCATION

Carnegie Mellon University
B.S. Statistics and Machine Learning, May 2019
- **GPA**: 3.22/4.0
- **Dean's List**: Spring 2018, 4.0

CONTACT

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TECHNICAL SKILLS

Programming Languages and Frameworks
- Extensive experience using **Python** and **R** for data analysis, visualization, and working with Machine Learning frameworks such as **TensorFlow** and **Keras**.
- Working knowledge of **JavaScript**, especially with **React** and **React Native** frameworks, for developing websites, web apps and mobile apps.
- Proficient use of **C** for implementing algorithms and advanced data structures.

WORK EXPERIENCE

Intelectum LLC
Web Development Intern (Mexico City, Mexico – Summer 2018)
- Developed a desktop application for the distribution of premium content, using **React** and **ElectronJS**.
- Designed a deep neural network using **Keras** in **R** to provide daily trading recommendations to subscribers, through the desktop application.
- Created a **React Native** mobile application containing several self-evaluation quizzes in areas such as productivity, organization, and communication.

APS Technology Inc.
Data Science Intern in Quality Assurance (Wallingford, Connecticut – Summer 2017)
- Developed database applications in **JavaScript**, to automate the flow of information between manufacturing and engineering teams, the QA department, and customer support and sales representatives in 3 countries. These applications led to a measurable decrease in time taken to respond to hardware and software failures.
- Used **Python** to extract and clean data from manufacturing and testing instruments, develop models to predict faulty products, create visualizations with valuable insight for the production process.

Carnegie Mellon University – Department of Statistics and Data Science
Astro-Statistics Research Trainee (Fall 2016)
- Analyzed data from the Catalina Sky Survey (consisting of over 13 million measurements) using tools in **R** to extract features of the data to distinguish different types of stars and transient objects.
- Used machine learning models (random forests, support vector machines, k-nearest neighbors) to classify stars based on type.
- Designed a poster to display visualizations and illustrate analysis and findings. Presented at CMU's Undergraduate Research Symposium in May 2017.

OTHER SKILLS

Tools
- Experience working with **Git**, **Linux**, and **Docker Containers**.
- Working knowledge of **SQL (Postgres, MySQL)** and **NoSQL (MongoDB, Cassandra)** databases.

Languages Spoken
English (native), Spanish (native), French (intermediate, 5+ years)