Sergio Ramírez

Data Scientist

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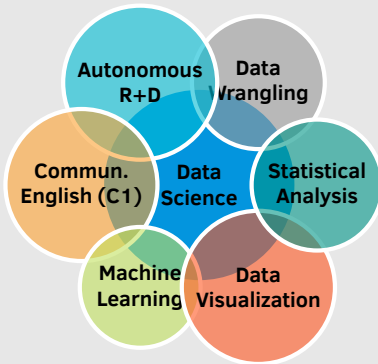
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⊙ sramirez

Skills

Overview

Programming

$0\ LOC$ ──────────→ $5000\ LOC$

Scala • Spark • R

Python • Java • LaTeX

C • C++

Software

DecAR - An augmented reality interior decoration app for Android

CIS*6320 - An implementation of the Bicubic interpolation algorithm in C++

CIS*6650 - A comparative statistical study of SVM kernels, and number of hidden layers in ANN, on 5 UCI datasets

CIS*6660 - A data linkage project to integrate Canada's WWI casualties and 1901 Canadian census using an SVM

CIS*6650 - A statistical study of spurious correlations, such as correlating beer production with election outcome

Education

| 2013 - 2018 | **Ph. D., Computer Science** CUM LAUDE | University of Granada, Spain |

🏆 Best Ph. D. Thesis Project award, by Spanish Association of Artificial Intelligence (AEPIA)

| 2012 - 2013 | **MSc., Computer Science** (GPA: 8.1/10.0) | University of Granada, Spain |

| 2009 - 2012 | **BEng., Computer Engineering** (GPA: 8.8/10.0) | University of Jaen, Spain |

| 2006 - 2009 | **BEng., Computer Technical Engineering** (GPA: 7.9/10.0) | University of Jaen, Spain |

🏆 Bachelor extraordinary award

Research

2012 - 2018 Ph. D. Candidate, Graduate Research Assistant   University of Granada

Thesis: Distributed Data Reduction Algorithms for Big Data

- Proposed a scalable stepwise deterministic method to reliably integrate datasets without labeled data. The method performs comparably with a method that incorporates a Support Vector Machine
- Constructed a rich longitudinal dataset to enable comphrehensive time-series analyses about WWI Canadian society and military
- **Tools**: R, Python, scikit-learn, BeautifulSoup, pandas, matplotlib

Experience

April 2017 - Present   **Data Engineer**   Bell

- Currently involved in building a realtime data ingestion pipeline on a Kafka cluster using Spark Streaming, to detect SMS spammers on Bell's network in realtime

Sep 2015 - May 2016   **Co-founder & Full Stack Developer**   LocalXChange Inc.

- In a team of 2, raised $8,000 in funding from The Hub incubator at the University of Guelph, to develop a prototype hyperlocal content platform, aimed at delivering local news and events from community organizations to local users in realtime (i.e., hyperlocal)
- In a team of 3, built hybrid mobile & web apps with Ionic, Angular.js and MongoDB, surpassing 1,000 users within a month since launch
- Met with city officials, including the Mayor of Guelph, and university officials to discuss marketing & business strategies for the platform

Sep 2015 - Dec 2016   **Graduate Teaching Assistant**   University of Guelph

- TA for CIS*2430 (OOP), CIS*4150 (Software Reliability & Testing) and CIS*3530 (Database Systems & Concepts) courses

Dec 2013 - Apr 2015   **Test Automation Engineer**   Synechron

- Developed a *Keyword Driven* and *Behavior Driven* test automation framework for Microsoft Dynamics CRM. Wrote an efficient recursive function to search multi-level frames, reducing development time by approximately two weeks. Won SPOT award 🏆
  My work opened up a new position in the organization, enabling it to earn additional revenue of $3,500 per month (estimated)
- Demonstrated by proof of concept that rewriting a test automation framework for Microsoft Dynamics AX, using an open source library (White) instead of a proprietary one (Coded UI), would enable the team to save $4,000 annually by downgrading the prevailing edition of Microsoft Visual Studio from *Premium* to *Professional*