# Jose Nandez

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# **EDUCATION**

#### **UNIVERSITY OF ALBERTA**

PhD in Physics

Jun 2015 | Edmonton, AB

#### **UNAM**

MSc in Astronomy - Summa Cum Laude

Dec 2010 | Mexico City

#### **UNAM**

BSc in Applied Mathematics - Summa Cum Laude

May 2009 | Mexico City Minor: Computer Science

## LINKS

https://www.linkedin.com/in/josenandez

https://github.com/JNandez https://www.kaggle.com/jnandez

# **SKILLS**

#### **PROGRAMMING**

Python • SQL • BASH • LATEX

C • C++ • Scala

#### **SUBVERSION:**

Git • GitHub • BitBucket

#### MACHINE LEARNING:

sklearn • scipy • xgboost • lightgbm

Keras • CatBoost • H2O • TensorFlow

#### **CLOUD ENVIRONMENTS:**

Azure • DataBricks • AWS • SSH GCP

#### VISUALIZATION:

PowerBI • matplotlib • seaborn

#### **BIG DATA:**

Spark • Hadoop • Hive • Pig • HBase

OS:

Windows • Linux • MacOS

#### **DATABASES:**

SOL Server • MongoDB

### **DATA FORMATS:**

CSV • JSON • XML

PNG • PARQUET • ORC

## **EXPERIENCE**

# MAPLE LEAFS SPORTS & ENTERTAINMENT | LEAD DATA SCIENTIST

May 2019 - | Toronto, ON

- Provide mentorship when developing and implementing ML models for the MLSE data science team.
- Work with Team Operations for the implementation of new Deep Learning models using Keras and TensorFlow
- Provide scientific advice to the VP of Basketball Strategy&Research.
- Manage ML projects.
- Suggest and explore novel solutions to data science/data visualization/data pipeline problems.

# MAPLE LEAFS SPORTS & ENTERTAINMENT | DATA SCIENTIST

Jan 2018 - May 2019 | Toronto, ON

- Build high quality datasets (using Data Lakes) and develop data science tools to drive fan experience by means of real-time visualization, using EventHub, Stream Analytics and PowerBI
- Work with Team Operations to develop, optimize and deploy of Deep Learning models using Keras and TensorFlow.
- Conduct end-to-end analysis that includes data gathering, processing, analysis, ongoing deliverables and maintaining existing models.
- Create production pipelines for data ingestion, aggregation and modeling of mobile data using Data Factory, Blob Storage, Batch Accounts.

# **COMPUTE CANADA - SHARCNET** | RESEARCH SCIENTIST

Nov 2015 - Aug 2018 | London, ON

- Help to deploy big data analytics/mining tools.
- Develop plans, timelines and deliverables for the design, development, implementation, testing and deployment of big data applications.
- Help researchers to architect data collection, movement and storage for structured and unstructured data and streaming/real-time data.

## **AWARDS**

2018 MLSE Performance Excellence Award

2013 Mary Louise Imrie Graduate Student Award

2012 Mexican Best National Astronomical Master's Thesis

2011 - 2015 CONACYT Doctoral Fellowship

# SELECTED PUBLICATIONS

- [1] N. Ivanova, S. Justham, J. L. Avendano Nandez, and J. C. Lombardi. Identification of the long-sought common-envelope events. *Science*, 339(6118):433–435, 2013.
- [2] J. L. A. Nandez, N. Ivanova, and Jr. Lombardi, J. C. V1309 Sco—Understanding a Merger. *ApJ*, 786:39, May 2014.
- [3] J. L. A. Nandez, N. Ivanova, and J. C. Jr Lombardi. Recombination energy in double white dwarf formation. *MNRAS*, 450:L39–L43, June 2015.
- [4] J. L. A. Nandez and N. Ivanova. Common envelope events with low-mass giants: understanding the energy budget. MNRAS, 460:3992–4002, August 2016.
- [5] Natalia Ivanova and Jose Nandez. Planetary Nebulae Embryo after a Common Envelope Event. *Galaxies*, 6:75, July 2018.