

# Rafael Claro Ito

**Electrical Engineer** HW & SW Developer **Data Scientist** 

- 03/02/1992
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# Languages

	English	•		•	•	
<b>(</b>	Portuguese	•	•	•	•	•
П	Italian	•	•	•	•	
П	French	•	•			
*	Spanish	•	•			
•	Japanese	•				

# **Awards**

2009 6th place at OSA

2009 Silver Medal at OBMEP

2008 Silver Medal at OBMEP

2008 Certificate of Merit at OMU

2007 Honorable Mention at OBMEP

2006 Honorable Mention at OBMEP

OBMEP: Brazilian Public Schools Mathematics Olympiad OSA: UNICAMP Physics Olympiad OMU: UNICAMP Mathematics Olympiad

## **Education**

#### Graduate

### **University of Campinas**

🛗 Jan 2017 - current

♀ Campinas/SP



Part-time Masters degree without being officially enrolled.

	Subject	Credits	Professor(s)	Semester	Grade
IA353A	Redes Neurais	4	Fernando José Von Zuben	1s2020	in progress
IA376E	Tópicos Em Engenharia de Computação VII → Redes Neurais Profundas Para Processamento de Linguagem Natural	4	Roberto de Alencar Lotufo	1s2020	in progress
IA006C	Tópicos em Sistemas Inteligentes II ← Aprendizado de Máquina	4	Levy Boccato Romis Ribeiro de Faissol Attux	2s2019	А
IA368N	Tópicos em Engenharia de Computação V → Introdução à Robótica Móvel	4	Eleri Cardozo Eric Rohmer	2s2017	А
IA750A	Engenharia de Reabilitação	4	Antonio Augusto Fasolo Quevedo	2s2017	A
IA368W	Tópicos em Engenharia de Computação V ← Métodos Estocásticos Para Robótica Móvel	4	Eleri Cardozo Eric Rohmer	1s2017	А
IE327P	Tópicos Especiais em Microeletrônica III → Sensores, Condicionamento e Aquisição de Dados	4	Elnatan Chagas Ferreira	1s2017	А

\*table information in Portuguese

### Undergraduate

### **University of Campinas**



♀ Campinas/SP



EA999A Tópicos em Egenharia de Computação 4 Roberto de Alencar Lotufo Férias de Verão 2020 8.9 Curso Teórico-Prático de Redes Neurais Convolucionais		Subject	Credits	Professor	Semester	Grade
	EA999A		4	Roberto de Alencar Lotufo	Férias de Verão 2020	8.9

\*table information in Portuguese

### **Undergraduate (Student Exchange Program)**

### **Queen Mary University of London**

m Sep 2014 - Aug 2015

**♀** London



Studies sponsored by the Brazilian government due to academic merit. Science without Borders (SwB) student exchange program.

### **Further Education**

### **Technical College of Campinas - UNICAMP**



Campinas/SP



Selected to work as a Teaching Assistant of the technical course.

# **Machine Learning Portfolio**

### Jupyter notebooks:

### **Computer Vision:**

MNIST: Linear Classifier	0 00
MNIST: Extreme Learning Machine (ELM)	o 🚥
MNIST: Multilayer Perceptron (MLP)	0 🚥
MNIST: ConvNet (CNN)	o 🚥
Transfer Learning: Cats and Dogs	<b>ი</b> თ
Transfer Learning (last layer): Fruits360	O 🚥
• Transfer Learning (fine tuning): Fruits360	O 🚥

atural Language Processing (NLP):		
Language Model     Sentiment Analysis (IMDb dataset) using:	0	co
• Bag-of-Words	0	co
• TF-IDF	0	co
<ul> <li>Simplified Self-Attention</li> </ul>	0	co
Transformer (Encoder only)	0	co
• BERT	0	co
T5 English to Portuguese Translator	0	co

### Video Processing:

• YOLO	in progress
<ul> <li>MobileNets</li> </ul>	in progress

### One-page papers summary:

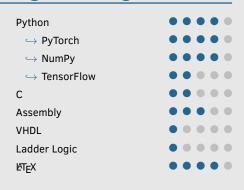
\*available only in Portuguese

- "A Neural Probabilistic Language Model", 2003 • "A Unified Architecture for Natural Language Processing: Deep Neural Networks with Multitask Learning", 2008
- $\hookrightarrow$  summary:  $\bigcirc$ • "Efficient Estimation of Word Representations in Vector
- Space", 2013 👨
- • "Deep Learning", 2015 🥃
- "Effective Approaches to Attention-based Neural Machine
- Translation", 2015
- "Attention Is All You Need", 2017 👨
- "BERT: Pre-training of Deep Bidirectional Transformers for Language Understanding", 2019
- · "Exploring the Limits of Transfer Learning with a Unified
- Text-to-Text Transformer", 2019
- "The Curious Case of Neural Text Degeneration", 2019 👨

# Rafael Claro Ito

**Electrical Engineer** HW & SW Developer Data Scientist

# **Programming Skills**



# **Softwares Experiences**

- Linux
- MATLAB/Octave
- Docker
- · Jupyter Notebooks
- Anaconda
- Ansible
- Zabbix
- Qt
- CodeWarrior
- · Kinetis Design Studio
- · Quartus (Altera)

# References



△ △ João da Silva

Head of blah

- · Relação: ex-boss
- · contato: joao.silva@gmail.com



Fulano Beltrano

Professor at Unicamp · Relação: ex-professor

· contato: fulanobeltra@gmail.com

# **Working Experience**

### **Technological Development Analyst**

### **CNPEM/LNLS**

🛗 Jan 2016 – current

Campinas/SP



### **Teaching Assistant**

### **University of Campinas**

🛗 Jan 2016 – Jul 2016

Campinas/SP



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### Scientific Research

### **Queen Mary University of London**

🛗 Jun 2015 – Sep 2015

**♀** London



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### **Electronics intern**

bla

hla

### **CPqD - Telecommunications Research and Development Centre**

🛗 Jan 2010 – Jun 2010

♀ Campinas/SP



### Teaching Assistant

### **Technical College of Campinas**

🛗 Jan 2009 – Dec 2009

Campinas/SP



### **Publications**

October 2019 **Exploring Embedded Systems' Dedicated Cores for Real-Time Application** 

P. H. Nallin, G. R. S. Franco, R. C. Ito, and A. R. D. Rodrigues

17th Int. Conf. on Accelerator and Large Experimental Physics Contro

(ICALEPCS'19)

New York, USA October 2019 Software and Hardware Design for Controls Infrastructure at Sirius Ligh

G. R. S. Franco et al.

17th Int. Conf. on Accelerator and Large Experimental Physics Contro (ICALEPCS'19)

New York, USA

Rafael Claro Ito May 10, 2020