Vinicius **Prado**

Computer Scientist · PhD

2-100 Waverley St. Ottawa, ON K2P CANADA

613 866 7744 | vncprado@gmail.com | vncprado.github.io | vncprado | pradovinicius

Summary

I am a Ph.D. in Electrical and Computer Engineering, seeking opportunities in the IT industry. My background is Computer Science, and I've been developing prototypes and supporting research teams over the previous four years of teaching and research assistant experience. My recent research involves applying **Machine Learning** on sensor data for object pose estimation and recognition. In this project, I choose to work with a variety of technologies, including but not limited to: **Python**, **C++**, **scikit-learn** and **pandas**. Before starting my PhD, I had around one and a half years of experience with software development in C# within research laboratories. I expanded this knowledge by teaching, among other topics, digital systems and operating systems during my time at the University of Ottawa. Although **Python** and **C++** being my preferred languages, I am pretty flexible with the target environment.

Work Experience

University of Ottawa
Ottawa, Canada

Teaching Assistant — *Sep. 2015 - Dec. 2019*

- Provide insights to students on leading technologies, such as, **Python**, **C++**, **FPGA**, VHDL, **Android**, **Arduino**, **Linux**, among others.
- Assisted professors in eight different courses with group and one-to-one discussions in lectures, Q&A sessions and hands-on activities.
- A was TA for courses including but not limited to: **Computer Architecture**, **Capstone Project** and **Operating Systems**.

University of Ottawa
Ottawa, Canada

Research Assistant — *Jan. 2015 - Dec. 2019*

- Provide operational and administrative support to Research Manager, with several tasks among others, writing technical papers, implement testing methods, oversee experiments and produce results.
- Develop experiments using cutting edge techno which include but are not limited to: **C++, Python**, **Linux**, **micro-controllers**, **SoC**, **tactile sensors**, **IMU**, **robotic operating system** (ROS).

National Laboratory of Scientific Computing
Petrópolis, Brazil

Researcher — *Fev. 2014 - Aug. 2014*

- Research on cryptography working with a team of PhD and master students implementing algorithms using **C++** and **Python**.
- Perform experiments using **Massively Parallel Processors** (MPI)

Laboratory of Applied Computational Intelligence
Rio de Janeiro, Brazil

Web Developer — *Sep. 2013 - Aug. 2014*

- Developed web application management of hydro reservoir used in energy generation with **C#** and **.Net**.

Education

University of Ottawa
Ottawa, Canada

PhD, Electrical and Computer Engineering — *Sep. 2014 - Feb. 2020*

- Thesis: *Object Identification and Pose Estimation Using Bio-Inspired Tactile-Enabled Multi-Joint Fingers for In-Hand Manipulation*
- Technologies: **ROS**, **C++**, **machine learning**, data structures, tactile sensing, Inertial sensors, pressure sensors.
- Supervisor: Emil M. Petriu, Ph.D.
- Field: Robotics, in-hand manipulation, Sensors.

IME - Military Institute of Engineering
Rio de Janeiro, Brazil

MSc, Systems and Computing — *Fev. 2011 - Jun. 2013*

- Master thesis: *Location system to support a domestic assistant robot using RSS and ZigBee.*
- Technologies: **Arduino**, C++, **ZigBee**, RSS, Serial communications.
- Supervisor: Professor Paulo Fernando Ferreira Rosa, Ph.D.
- Field: Smart Environments, Wireless Sensor Networks.

UFT - Federal University of Tocantins
Palmas, Brazil

BSc, Computer Science — *May. 2006 - Exp. Dec. 2010*

- Final Project: *People Recognition by the Step Sounds Using ART Type Self-Organizing Neural Networks.*
- Technologies: Signal processing, **Neural Networks**, **Python**.
- Supervisor: Rafael Lima de Carvalho, D.Sc.
- Field: Artificial Intelligence, **Smart Environments**, Neural Networks.

Extracurricular Activity

Parallel Programming with OpenCL e OpenACC
Petrópolis, Brazil

National Laboratory of Scientific Computing — *2013*

- Course Load: 12h

Software and Hardware Skills

Programming Languages

- **Python**, **C++**, C, Java, C#, UNIX shell scripting, JavaScript, SQL, Matlab, Octave, R.
- **Pandas**, **Scikit-learn**, **Jupyter**, NumPy, Keras.
- **ROS** (Robot Operating System)
- **Arduino** Platform, **Raspberry Pi** platform.
- **Git** version control system.

Operating Systems

- **Linux**, Microsoft Windows, BSD, e other Unix variants.

Computer Networking

- Wireless Networks (**XBee**, **ZigBee** radio modules).
- Networks (UDP, TCP, ARP, DNS, Dynamic routing), Linux Servers (Apache, SQL, POP, IMAP, SMTP), i2c, USB-serial.

CAD and Design

- Solidworks, **FreeCAD**, **Eagle** (PCB design).

Languages

English

- Understands Well, Speaks Well, Reads Well, Writes Well.

Portuguese

- Native.

References

Petriu M. Emil - Ph.D. *Ottawa, ON, Canada*

petriu@uottawa.ca

- Professor, University of Ottawa, Electrical and Computer Engineering
- 800 King Edward Ave Ottawa, ON CANADA
- Professor Petriu is my PhD advisor.

Thiago Eustaquio Alves de Oliveira - Ph.D. *Thunder Bay, ON, Canada*

thiago.oliveira@lakeheadu.ca

- Assistant Professor, Lakehead University, Computer Science
- 955 Oliver Rd Thunder Bay, ON, CANADA