Pedro Caldas Tammela

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EDUCATION

Pontifícia Universidade Católica do Rio de Janeiro   Rio de Janeiro, Brazil
Bachelor of Computer Science   *Jan. 2015 – Dec. 2019*
- **Bachelor's Thesis**: Extension of the Linux's Socket interface with Lua.
- **Awarded**: 90% Scholarship for 3 years.
- **Course Emphasis**: Programming languages theory and Distributed systems

Pontifícia Universidade Católica do Rio de Janeiro   Rio de Janeiro, Brazil
Minor in Entrepreneurship   *Jul. 2017 – Dec. 2019*

EXPERIENCE

CUJO AI   Rio de Janeiro, Brazil
Developer - Contractor   *Jan. 2017 - Present*
- **Cross architecture development**: ARM, x86 and MIPS architectures.
- **Lunatik**: A porting project of the Lua scripting language to the Linux kernel.
- **NFLua**: A packet scripting engine based on Lunatik and Netfilter.
- **Meta-data parsing**: Protocols parser written in Lua for software interrupt processing.
- **Packet meta-data analysis**: Layer 3/4 meta-data analysis and real time data collection.
- **Layer 3 quarantine**: A layer 3 packet quarantine using skb references.
- **Packet reputation**: Real time packet reputation analysis with distributed communication and kernel/user-space synchronization.
- **Proof of Concepts**: Written numerous proof of concepts in Lua and C for upcoming features, researching the feasibility of the feature in an embedded platform with limited resources.

CERTIFICATIONS

Google Summer of Code   Rio de Janeiro, Brazil
Associate Mentor for LabLua   *May 2018 - Aug. 2018*
- **Rcu for Lunatik**: A Lua binding for the kernel Rcu API. Developed by Caio Messias.
- **Socket for Lunatik**: A Lua binding for the kernel Socket API. Developed by Chengzhi Tan.

PROJECTS

- **Ulp Lua**: A upper layer protocol for socket scripting with Lua.

- **Lua LLVM Binding**: A Lua binding for the C LLVM Backend.

- **Lua in Kernel**: Continuous development and support for kernel ports of the Lua scripting language.

- **Lunatik**: A port of the Lua language for the x86 Linux kernel. Originally developed by CUJO AI.

- **PoC Driver**: A driver that provides a pseudo device to run Lua scripts inside the kernel. Written for proof of concepts.

- **Personal Website**: Where I write about interesting stuff.

CONFERENCES

- **Google Summer of Code 2018**: Conference sponsored by Google for GSoC Mentors in Sunnyvale, California.

- **Lua Workshop 2018 (Speaker)**: Conference sponsored by CUJO AI in Kaunas, Lithuania.

- **Lua Workshop 2017**: Conference sponsored by KONG in San Francisco, California.

- **LuaConf 2017**: Conference sponsored by PUC-Rio in Rio de Janeiro, Brazil.

- **LuaConf 2016**: Conference sponsored by PUC-Rio in Rio de Janeiro, Brazil.