Leandro Facchinetti

Résumé

https://leafac.com
resume@leafac.com
Portugal (available to relocate)

EDUCATION

PhD Candidate. Johns Hopkins University. Computer Science. Programming Languages. Advisor Dr. Scott Smith. 2014-09 – 2020-07.

Master's Degree. Johns Hopkins University. Computer Science. 2014-09 – 2016-10.

Bachelor's Degree. *Universidade de São Paulo*. Computer Science. 2008-02 – 2012-09.

SELECTED WORK EXPERIENCE

CourseLore. Web Developer & Designer. 2021-01 – Present.

- CourseLore is an open-source student forum.
- Sole developer & designer working on all parts of the web stack, from the database and the backend to visual design and the frontend.
- Extracted several open-source libraries from the project, for example, caxa and @leafac/sqlite.
- Engineered the application to make it as straightforward as possible to self-host, even by non-technical people.

Johns Hopkins University. Research Assistant. 2014-09 – 2020-07.

- Part of the PhD program.
- Co-authored papers that were published in leading venues, for example, the *ACM Transactions on Programming Languages and Systems (TOPLAS)*.
- Did a qualifying project in the field of cryptography advised by Dr. Matthew D. Green and Dr. J. Ayo Akinyele.
- Did research on programming languages, in the field of program analysis, developing new techniques for control-flow analysis of higher-order functions.
- Goal as researcher: To communicate technical ideas as clearly as possible to software developers in industry, avoiding jargon, obscure notation, and unnecessary complexity.
- Was the system administrator for the laboratory for 5 years.

DasDad. Software Developer. 2013-02 – 2013-12.

- DasDad was a product start-up. Unfortunately the angel investor behind it folded and the product wasn't released.
- Contributed to backend services in Ruby and Java, and to a frontend application in Ruby on Rails.
- The applications used natural language processing and artificial intelligence for recommendation, summarization, and sentiment analysis.
- Worked on infrastructure, implementing systems for continuous integration and continuous delivery.
- Helped to manage outreach activities for the local programming community including hackathons and coding dojos.

SELECTED TEACHING EXPERIENCE

Instructor. Johns Hopkins University. Object-Oriented Software Engineering. 2019-08 – 2019-12.

- Course website: leafac.com/7.
- Updated the curriculum and developed new material, including video lectures [leafac.com/8].
- Goal as educator: To build students' confidence.
- One of the biggest courses in the department, with 85 students.
- Managed a team of 15 course assistants.
- Developed a robot to assist on course administration, including grading, surveying students for course feedback, and so forth [leafac.com/9].
- Students rated the course around the department average, and some said it was the best course they ever took [leafac.com/10].

SELECTED PUBLICATIONS

A Set-Based Context Model for Program Analysis. Leandro Facchinetti, Zachary Palmer, Scott Smith, Ke Wu, and Ayaka Yorihiro. *The 18th Asian Symposium on Programming Languages and Systems (APLAS)*. 2020. [PDF: leafac.com/44] [Publisher: leafac.com/45]

Higher-Order Demand-Driven Program Analysis. Leandro Facchinetti, Zachary Palmer, and Scott Smith. *ACM Transactions on Programming Languages and Systems (TOPLAS)*. 2019. [PDF: leafac.com/19] [Publisher: leafac.com/20]

Relative Store Fragments for Singleton Abstraction. Leandro Facchinetti, Zachary Palmer, and Scott Smith. *24th Static Analysis Symposium*. 2017. [PDF: leafac.com/22] [Publisher: leafac.com/23]

Higher-Order Demand-Driven Program Analysis (Artifact). Leandro Facchinetti, Zachary Palmer, and Scott Smith. *ECOOP 2016 Artifacts*. Also appeared at the *Dagstuhl Artifacts Series*. 2016. [PDF: leafac.com/27] [Code: leafac.com/28] [Publisher: leafac.com/29]

What is Your Function? Static Pattern Matching on Function Behavior. Leandro Facchinetti, Pottayil Harisanker Menon, Zachary Palmer, Alexander Rozenshteyn, and Scott Smith. *The 17th Symposium on Trends in Functional Programming (TFP 2016)*. 2016. [PDF: leafac.com/30]

AWARDS

Whiting School of Engineering's Professor Joel Dean Excellence in Teaching Award. 2019-05-06.

SELECTED PERSONAL PROJECTS

YouTube Channel. Videos about programming: live-coding sessions and code reviews covering audio/video applications, programming languages, web applications, and so forth. [leafac.com/46]

Kill the Newsletter! Convert email newsletters into Atom feeds. Featured on Lifehacker, Hacker News, Product Hunt, and several blogs around the world. [leafac.com/34]

caxa. Package Node.js applications into executable binaries. [leafac.com/49]

Roboose. GitHub Probot that assists on managing a course using GitHub for forum, assignments, grading, and so forth. [leafac.com/38]

Contributions to JavaScript & TypeScript projects. xmlbuilder2, DefinitelyTyped, Visual Studio Code LaTeX Workshop Extension, and Gatsby.

Contributions to Web Frameworks. Ruby on Rails, and Javalin.

REFERENCES

Dr. Scott Smith. Full Professor. Johns Hopkins University. Former PhD advisor. scott@cs.jhu.edu

Dr. Matthew D. Green. Associate Professor. Johns Hopkins University. Former project advisor. mgreen@cs.jhu.edu

Dr. Ali Madooei. Lecturer. Johns Hopkins University. Former teaching colleague. madooei@jhu.edu

Dr. Zachary Palmer. Assistant Professor. Swarthmore College. Former research collaborator. zachary.palmer@swarthmore.edu