Pedro A. A. Furlanetto

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Passionate functional programming professional with almost 20 years of international experience building high quality, reusable, and extensible software. Intellectually curious continuous learner with extensive independent study, open source work, and deep connection to Haskell and Scala communities through presentations and events. Comfortable in individual contributor or team leadership roles with significant experience in mentoring junior talent. Advocate for letting computers do what they do best and letting humans do what we do best.

EXPERIENCE

Senior Software Engineer, CompStak - New York, NY   Oct 2018 - Present

CompStak is a Series B startup that provides the world's first comprehensive database of commercial real estate data.

- Contributed to application development using Scala, Cats (and sister projects), Kafka, MySQL, PostgreSQL, ElasticSearch, and various AWS services.
- Built and maintained new features of multiple internal and customer facing systems, including JavaScript and Python apps.
- Collaborated on architecture, data modeling, and implementation of a new proprietary data collection platform for importing and consuming multiple external data sources.
- Built a Haskell front-end interacting with a C machine learning model.
- Migrated build system from Pants to SBT.

Embedded Software Developer, Picks - Rio de Janeiro, Brazil   May 2019 - Oct 2019

Picks is an innovative physical payment system for restaurants via mobile applications.

- Built embedded prototype for displaying cyphers as QR-code.
- Collaborated on full solution architecture including choice of crypto schemes for execution on an ESP32.

Senior Software Engineer, X.ai - New York, NY   Feb 2015 - Sept 2018

X.ai is an AI-powered scheduling software product.

- Provided development with a mix of languages and tools including Scala, ScalaZ, MongoDB, multiple AWS services, JavaScript, and TypeScript.
- Made significant contribution to development of the "Amy" AI-powered virtual assistant using Scala.
- Partnered with teams from multiple departments to gather requirements, build product features, and continuously refactor and improve the code base.
- Built internal tools for data debugging.
- Implemented CI/CD using CircleCI and AWS Code Deploy for primary services.
- Developed two projects with intent for open sourcing, including an unbound variables identifier built in Haskell and a solution for extracting data from JSON built in Scala.
- Mentored junior Scala developers and evangelized best practices of FP.

Senior Software Engineer, Sports195 - New York, NY   May 2014 - Oct 2014

Sports195 connected sports entities and fans with a global network of shared content used for websites and newsfeeds.

- Wrote software using Scala, Play, Typesafe Slick, ScalaZ, and SQL.
- Built a code generator to map hundreds of Slick classes to their SQL counterparts.
- Maintained the Scala code base, refactored Scala to improve maintainability, and optimized Slick queries.
- Tutored junior Scala developers.

Software Engineer/Founding Partner, RGFM - Rio de Janeiro, Brasil   Oct 2011 - May 2013
RGFM is a startup music classification and distribution platform.
- Contributed to full-stack development and sysops including work in Scala, ScalaFX, Play, Slick, and JavaScript.
- Built tools for DJs to create and maintain playlists, the customer website, and a desktop client music player featuring a proprietary DRM scheme.

Freelance Consultant, Combinatory Solutions - Rio de Janeiro, Brasil/France   Oct 2011 - July 2012
Combinatory Solutions is a consulting firm.
- Provided development services in Scala and Android for multiple clients.
- Built the VerbalizeIt language translation apps for iOS and Android using PhoneGap.

Senior Software Engineer, IDEAIS - Rio de Janeiro, Brasil   Feb 2005 - July 2011
IDEAIS is a software consulting company.
- Contributed to software development projects using diverse languages and tools including Java, Hibernate, Struts2, Apache Solr, AWS, Spring, JavaScript, Freemarker, Oracle, SQL Server, MySQL, and WebLogic.
- Managed development and deployment automation of multiple iterations of a proprietary CMS and search engine.
- Optimized performance of Solr for various products.
- Built the Helioscope Solr querying and editing tools to facilitate CMS debugging.
- Performed requirements gathering for multiple greenfield projects.

EDUCATION

Post-Graduate - Distributed Systems Development and Management, e-IS Expert Program, Universidade Federal do Rio de Janeiro (UFRJ) - Núcleo de Computação Eletrônica (NCE) (2007)
Bachelor's Degree, Systems Analysis, Universidade Estácio de Sá (2005)
Graduate - Two years of Engineering at PUC-Rio (1997)

Courses taken
- EdX Introduction to Functional Programming by Erik Meijer
- Coursera: FP in Scala, Reactive programming in Scala, Analysis of Algorithms, and Machine Learning
- NICTA's FP Course (repo)

OPEN SOURCE PROJECTS, COMMUNITY, & INTERESTS
- Transform-IDL - WebIDL parser and aspiring FFI generator for altjs languages.
- Slick-Perf - Typesafe Slick performance comparison
- Presenter, The Developer Conference 2015 - Presented on FP and ScalaZ to explore strongly typed FP, the expression problem, polymorphism, with a quick intro to ScalaZ.
- Host, Rio Scala Enthusiasts Meetup group (2012 - 2013)
- Presenter, Scalathon 2011 - Presented Hacking Scaladoc and its Architecture
- Deep connections to the Scala and Haskell communities through social media and conference attendance
- Interests: Abstract Algebra, Type Theory, Formal Methods and its use in FP, Machine Learning, altjs languages (e.g. Purescript, GHCJS), FRP, learning piano (especially Erik Satie)