Henrique Vicente de Oliveira Pinto

Software Engineer

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PORTFOLIO

https://henvic.github.io/ contains a list of relevant projects, demos, slides for talks, and repositories.

EDUCATION

Universidade Federal de Pernambuco, Brazil — **Bachelor of Sciences in Computer Sciences**
Dissertation: picel - HTTP Middleware for image processing.

SKILLS

- Go
- JavaScript
- Unix scripting
- PHP
- Java
- Unit testing
- Git
- API
- MySQL
- Node.js
- Linux
- Cloud computing
- Microservices
- System design
- HTML
- Portuguese (native)
- English (fluent)
- Photography

PROFESSIONAL EXPERIENCE

Liferay, Inc.

MARCH 2014 – DECEMBER 2017 — ***Software Engineer***
JANUARY 2018 – PRESENT — ***Senior Software Engineer***

From January 2016 onwards worked on Liferay's cloud computing product WeDeploy:

- Conceived and lead its Command-Line-Interface (CLI) tool written in Go.
- Educated team members about security, cloud, and CLI software development best practices.
- Directed implementation of the functional testing suite for the CLI with *expect* and *TCL*.
- Researched git internal parts to use it as a reliable transport layer.
- Developed a secure authentication mechanism for the CLI with minimal user interaction.
- Debugged code with a varying degree of complexity on multiple platforms.
- Designed systems for gathering statistics and diagnostics data.
- Established a secure software release and distribution process to final users relying on code-signing verification and cryptography.
- Reverse engineered the socket.io protocol and worked on an implementation of it in Go.
- Researched Unix concepts such as sockets, TTY, and streams to create a feature (akin to the SSH protocol) to allow users to connect to their computing instances over WebSocket.

In general:

- Experience with front-end development and Node.js for server-side applications and CLI tools.
- Former maintainer of Node GH, a CLI tool for GitHub.
- Assembled integration testing environments with multiple operating systems for different projects, such as the AlloyUI graphical toolkit, Metal.js, and Senna.js using public and private cloud environments.
- Contributed to Senna.js, a Single-Page Application (SPA) engine, adding features and fixing issues. Experience backporting SPA feature to create a portlet prototype in the Liferay Portal.
- Debugged, and solved issues on early-days Node.js applications due to unstable API.
- Created bash scripts, Makefiles, and other toolings.
- Analyzed code with static analysis tools to improve its quality and fix defects pro-actively.

Project Vehikel — ***Creator, Software Engineer***

c. 2013 – 2015

- Researched the car marketplace to create an online marketplace similar to eBay's.
- Assembled a real-time search engine with faceted filters and autocomplete functionality using ElasticSearch, PHP, Node.js, MySQL, and Gearman.
- Conceived simple and compelling user interfaces with components such as maps, multi-view modes, edit-in-place, photo carousel, and a simple photo editor tool.
- Extracted automobile makers and models data from industry sources by writing a web crawler using the frameworks CasperJS and PhantomJS.

MGR Tecnologia, Recife — ***Software Engineer***

OCTOBER 2012 – JULY 2013

- Participated in the development of a subscription and on-premises corporate social network SaSS.
- Experience working with a PHP, MySQL, and PostgreSQL stack on the software development team.
- Streamlined a legacy code refactoring effort to reduce the number of instructions to render pages faster and reduce database load by profiling PHP code to identify bottlenecks.
- Reduced code complexity by both manual inspection and with the use of static analysis tools to measure CRAP (Change Risk Anti-Patterns) index, code defects, and test code.
- Introduced unit testing practice leading to better code quality and removal of unreachable code.
- Fixed security issues and reduced time and space complexity of SQL databases with the introduction of parameterization techniques and moving data joins away from the database layer.
- Reduced outbound network traffic by introducing a caching policy which reduced unnecessary Ajax calls.
- Designed, produced, and implemented a new chat component using Node.js and PHP for the backend and coached its front-end implementation.

Ogilvy & Mather, Recife — ***Software Engineer (Backend)***

MARCH 2011 – DECEMBER 2011

- Built systems and websites on demand for Fortune 500 clients.

Project Plifk — ***Creator, Software Engineer***

c. 2009 – 2011

- Conceived and developed Plifk, a file-sharing web service using a cloud computing stack.
- Researched Flickr, Twitter, and Multiply.com UX, GUI, API, privacy policy, and terms of services for using them as a reference.
- Designed and implemented the system design, server-side stack, GUI, and API.
- Authored the legal documentation such as privacy policy, terms of service, and abuse report strategy.
- Experience using Amazon Web Services (S3, EC2, RDS, and more).
- Programmed a stack composed of tools like Linux, git, PHP, Zend Framework, Memcached, and MaxMind GeoIP database.
- Followed then novelty best practices for front-end software development and UX, such as the use of progressive enhancement, HTTPS support, and remote logout feature.

CERTIFICATIONS AND AWARDS

- Dell EMC Academic Associate — ***Cloud Infrastructure and Services***
- PHP5 — ***Zend Certified Engineer***
- New York Film Academy — ***4-week filmmaking workshop***
- [High school] Brazilian Physics Olympiad — ***Honors***