André Pinto | Curriculum Vitae

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Experience

Spotify   **London - UK**

Senior Software Engineer   *May 2020 –*

I work in the team that owns the product catalog at Spotify, i.e. configuration of offers, plans, subscriptions, discounts, bundles... across all markets. Some of the projects I was involved in were:
- database migration from custom Postgres installation to GCP CloudSQL
- migration of critical product catalog endpoints from a 10+ years old Python service to a newer Java one
- refactoring of the entire caching layer of the new service, from data source to population mechanism and operationalization

Tech: Java, Python, GCP, Postgres, Docker, Kubernetes.

Quantcast   **London - UK**

Senior Software Engineer   *Nov 2018 – May 2020*

I worked in the team that owns the critical components for real-time bidding (RTB). We handle 3.5M req/s in less than 100 ms. I've:
- led, researched, designed, implemented and deployed a complete weighted and distributed load balancing solution with service discovery support, which reduced timeouts from 20% to <1% and throttling (-90% for some clients), while saving the company almost 1M USD/y against an alternative solution;
- investigated and fixed multiple company-wide customer critical production incidents;
- optimised RTB performance with user-agent caching, geo data set migration (network call to in-memory lookup), GC tuning (throughput to G1 and heap resize), custom optimised JSON parsing, network traffic shaping for log shipping...

Tech: Java, AWS, Terraform, Linux, TCP, UDP, Puppet, Docker, nginx.

Skyscanner   **London - UK**

Backend Developer   *Mar 2017 – May 2018*

Skyscanner, now part of Ctrip, is one of the most popular travel search sites in the world. I was part of their Data Tribe organization and worked on:
- designing and implementing the new reliable data path for business critical events (> 99.99% data availability);
- designing, implementing and scheduling batch jobs and "on the stream" solutions, to move the entire platform's data (10TB per day) from JSON into an optimized format (Parquet), while making the data sets available for querying in Athena;
- maintaining and improving existent solutions to move data from Kafka into Redshift.

Tech: Java, AWS, Hadoop, MapReduce, Dropwizard, Docker, Python, Airflow, Spark, Scala, Secor, Samza, Rancher.

ClearScore   **London - UK**

Backend Developer   *Nov 2016 – Mar 2017*

ClearScore is one of the leading FinTech businesses in the UK. By reaching 4M users since its inception in 2015, it has become the UK's #1 credit checking service. I've worked on:
- performance investigations/testing aned optimizations;
- development of new features (weekly credit report updates, coaching);
- improvement of registration funnels.

Tech: Java, Scala, Python, Docker, PostgreSQL.

Spotify   **Stockholm - SE**

Backend Developer   *Mar 2015 – Oct 2016*

Spotify is the leading music streaming service in the world and I was one of their backend engineers. I've worked on:
- the development and maintenance of the ingestion pipeline (content and metadata sent by the providers);
- data validation and enrichment;
- indexes creation (>150GB) and distribution (> 300 machines);
- core metadata service (7 regions, 250k r/s, 12M entities/s).

Tech: Java, Python, Crunch, Hadoop, Helios, Docker, PostgreSQL, Puppet, Memcached, GCP, RDF, Apache Jena, gRPC, Luigi, Zookeeper.

Blip (Betfair)   **Porto - PT**

SRE Developer   *Mar 2014 – Feb 2015*

Blip (part of Betfair) is a web development company responsible for the biggest betting website in the world (7B views/week and more transactions than all EU stock exchanges combined). I was focused on the scalability of our internal platforms and services. Some of my main responsibilities were:
- exploring and implementing new technologies (e.g. Zipkin) in our core webservices framework;
- maintaining our metric libraries (collectors, aggregators, forwarders);
- investigating and fixing bottlenecks and production issues (database overloads, thread leaks, memory leaks);
- capacity planning and performance testing.

Tech: Java, Guava, Spring, Jetty, Zipkin, Couchbase, OpenTSDB, AspectJ, Python, Go.

Blip (Betfair)   **Porto - PT**

Backend Developer   *Feb 2013 – Mar 2014*

Responsible for developing the middleware between our internal APIs and the frontend.
- Data retrieval and processing from the APIs into meaningful structures used by the frontend;
- Improving internal APIs, core modules, development tools and practices;
- Technological exploration to validate potential adoption by the company (e.g. Vert.x).

Tech: Java, Vert.x, Spring, FreeMarker, Selenium, Groovy, JavaScript, AspectJ, Guava.

3Decide   **Porto - PT**

Software Developer   *Aug 2011 – Jan 2013*

3Decide is a Portuguese startup that works in the fields of 3D interactivity, augmented reality and virtual tours. I was the main developer for the interactive technologies and I've worked on:
- an interactive 3D visualizer product for the web (Unity3D) with a backoffice (Yii framework);
- an interactive totem (augmented reality and video) for the National Railway Museum;
- the business plan for a serious game (2nd place out of 443 in the Creative Industries National Prize).

Tech: Unity3D, C#, Python, C++, PHP, JavaScript, Yii, AForge.Net/GRATF.

Audacity (GSOC09)   **Remote**

Software Developer   *May 2009 – Aug 2009*

Audacity is a free and open-source audio editor and recorder. My work there was part of the Google Summer of Code 2009 program. Project report: wiki.audacityteam.org/wiki/Bugfix_Automatic_Volume_Wiki
Tech: C++, Python.

Education

Faculty of Engineering of the University of Porto   **Porto - PT**

MSc in Informatics and Computing Engineering, 16 out of 20   *Sep 2006 – Jul 2011*

Thesis: Platform for the development of location-based games   19 out of 20

Programming, Algorithms and Data Structures, AI, Computer Graphics, Networks, Distributed Systems, Web Development, Databases, Compilers, Mathematics, Physics.

Delft University of Technology   **Delft - NL**

MSc in Computer Science (ERASMUS), 8.5 out of 10   *Sep 2010 – Jan 2011*

High Performance Computing, Databases and Datamining, Software Reengineering, Real-time Systems