

# MIGUEL VILÁ GONZÁLEZ

[miguel-vila @ github](#)

## PROFESSIONAL EXPERIENCE

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### Senior Software Engineer

[SiriusXM](#)

United Kingdom

*November 2022 - Present*

- Working inside the API tooling team, part of the platform services enablement organization.
- We develop tooling using Smithy, an AWS DDL language. The tooling we develop empowers teams to describe their services, implement them and consume them.
- Some of the projects in this area include:
  - Develop a way of describing which Smithy services are implemented and consumed by an application. This helps packaging things and tracing application dependencies in the platform.
  - Worked in compatibility checking: anytime there's a change to a service we check if this would break anything from a data processing point of view.
- Working as part of a team tasked with implementing semantic search using vector embeddings stored in OpenSearch.
  - We set up the infrastructure needed to ingest catalog data and generate embeddings using different models.
  - We set up a client to query the different indexes using the embeddings.

### Lead Software Engineer ← Senior Software Engineer ← Software Engineer

[Disney Streaming Services](#)

United Kingdom

*January 2017 - October 2022*

- As a member of several engineering teams, I was responsible for building and maintaining Disney+ and ESPN+, Disney's streaming platforms. I use a variety of technologies, including Scala, Python, TypeScript and several AWS products.
- I developed and maintained services related to commerce operations, including subscription lifecycle management. In this role, I worked closely with other teams to deliver cross-cutting features for these services.
- I participated in the evolution of the subscription system, including some migrations and unifications.
- I led a project in order to migrate one of the clients of the subscription system into a new generation version of the system:
  - Made technical proposals and steered the decisions.
  - Had technical discussions with the client team in order to make sure we understood the problem and possible edge cases.
  - Did research in advance of the implementation.
  - Improved our documentation in order to make it easier to onboard new members.
  - Split the work into deliverable units.
- Other responsibilities and achievements include:
  - Creating proposals for new components that improve the API and domain events of the subscription management system. Collaborating with other engineers in order to define the design and behavior of these new components. This resulted in an improvement in the quality of the data used in analytics and better visibility over the subscriptions lifecycle.
  - Developed and maintained a component that detects when subscriptions issued by partners overlapped with existing subscriptions for the same user. This results in the automatic pause of the subscription or a discount, depending on specific business rules. This provided a better experience for these users and costs savings in customer services operations.
  - Onboarded new members to the subscription team: gave them a primer on the domain and in response improved our own internal docs.
  - Made several technical proposals, proposing multiple options and arguing for the one I considered the best. I splitted proposals into separate tasks and other team members worked on them.
  - Proposed a change in the way test subscriptions are created so we wouldn't rely on a naming convention. This allowed other teams to test more complex scenarios and allowed us to easily identify test subscriptions and delete them, saving storage.
- As part of a different team I developed services for user authentication, account management and profile management. This included several microservices written in Scala.
  - Executed performance tests against those services in order to define sensible scaling policies.

- Helped to establish the infrastructure of multiple projects.

## Software Engineer

s4n

Colombia

January 2013 - June 2016

- Technical leader of a small team of engineers. Responsible for technical decisions and training new team members in the use of the tech stack.
- Developed enterprise software for a variety of companies, primarily insurance companies. Used a variety of technologies: Java, Scala and JavaScript amongst others.
- Developed a REST API using Scala for an international client in the United States.

## Teaching Assistant for Design and analysis of algorithms.

Los Andes University

Colombia

August 2011 - May 2012

- Evaluated student's homework and exams. Organized and lectured classes in preparation for exams.

## Software Engineer

CIACUA, Los Andes University

Colombia

March 2011 - August 2011

- Worked in the software reengineering process of an application used for the design and simulation of water distribution systems. Documented the design in UML and fixed bugs found in a version update.

## EDUCATION

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### Recurse Center

United States of America

August 2016 - November 2016

Self-directed, educational retreat for programmers to focus deeply on areas of programming outside their specialization. Specifically, I developed projects related to distributed systems, concurrency and functional programming.

### Los Andes University

Colombia

January 2009 - December 2012

BSc in Systems and Computing Engineering

## VOLUNTEERING

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### Climbing Clan

Manchester, United Kingdom

April 2023 - Present

Was part of a climbing community in Manchester. Every now and then I would volunteer: teaching people how to belay or other administrative tasks.

## ACHIEVEMENTS AND AWARDS

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- *"Quiero estudiar"* scholarship. This allowed me to study my undergrad at Los Andes University (October 2008).
- Classified to the latin american regional International Collegiate Programming Contest, 2011.
- Classified to the latin american regional International Collegiate Programming Contest, 2012.

## TECHNICAL SKILLS

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### Programming Languages

(in order of skill):

Scala, Java, Python, Javascript.

Infrastructure:

Mostly AWS. Cloudformation, CDK, DynamoDB, Kinesis, ECS, CloudWatch.

## OPEN SOURCE SOFTWARE CONTRIBUTIONS

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Over the course of my career I have contributed to several open source projects. This has been out of project driven necessity: to fix bugs or add new features that were needed for the projects I was working on. These are some contributions of note:

- [scalaz #750](#): Added a new functionality. Was able to do this after learning some functional programming concepts.
- [zio-metrics #53](#): Improved the external API of a metrics library, making it easier to use.
- [smithy-translate #42](#): Fixed a bug in a function that we depended on. This bug limited the usefulness of the library and hit one edge case that the maintainers were not aware of.
- [spotbugs #2988](#): Fixed a bug in a Java static analysis tool. The affected lint is related to reference comparisons, which is a very common source of bugs in Java.
- [smithy #2221](#): Extended the OpenAPI conversion to take into account deprecated annotations.
- [opensearch-java #1005](#) & [opensearch-api-specification #304](#): Extended the OpenSearch Java client in order to be able to use text embeddings.
- [opensearch-api-specification #324](#): Extended the testing framework used to test the OpenSearch API specifications by allowing steps to produce outputs to be used by other steps.

## SIDE PROJECTS

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I have some side projects listed in my personal web site [here](#).