MIGUEL VILÁ GONZÁLEZ

miguel-vila @ github

PROFESSIONAL EXPERIENCE

Senior Software Engineer   Remote - US East Coast Timezone
[SiriusXM]   *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   United Kingdom
[Disney Streaming Services]   *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 used 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 collaborated with other teams to deliver cross-cutting features for these services.
· I participated in the evolution of the subscription system, including migrations and unifications.
· I led a project to migrate one of the subscription system's clients to a next-generation version of the system:
  · Crafted technical proposals and guided decision-making.
  · Held technical discussions with the client teams to ensure thorough understanding of the problem and its edge cases.
  · Conducted research to inform the implementation.
  · Enhanced documentation to simplify onboarding of new members.
  · Broke work into discrete deliverable units.
· Other responsibilities and achievements included:
  · Designed proposals for new components to improve the API and domain events of the subscription management system, collaborating with engineers to define their design and behavior. This improved data quality for analytics and visibility into the subscription lifecycle.
  · Developed and maintained a component that detected when partner-issued subscriptions overlapped with existing subscriptions for the same user, automatically pausing the subscription or applying a discount per business rules. This enhanced user experience and reduced customer service costs.
  · Onboarded new team members to the subscription team by providing domain primers and improving internal documentation in response.
  · Prepared several technical proposals—outlining multiple options, advocating for the chosen solution, and splitting proposals into tasks for team execution.
  · Proposed a change to test-subscription creation logic to remove reliance on naming conventions, enabling other teams to test complex scenarios and simplifying identification and cleanup of test subscriptions, thereby saving storage.
· As part of a separate team, I developed services for user authentication, account management, and profile management, including multiple Scala-based microservices.
  · Executed performance tests against these services to define appropriate scaling policies.
  · Helped establish the infrastructure for multiple projects.

Software Engineer   Colombia
[s4n]   *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. Colombia
Los Andes University *August 2011 - May 2012*

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

Software Engineer Colombia
CIACUA, Los Andes University *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

Recurse Center *August 2016 - November 2016*
United States of America

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 *January 2009 - December 2012*
Colombia

BSc in Systems and Computing Engineering

COMPLEMENTARY EDUCATION

- Senior Engineer to Lead: Grow and thrive in the role (via Maven), Completed in 2025.
- Introduction to Corporate Finance, University of Pennsylvania (via Coursera), Completed in 2024.
- Financial Markets (with Honors), Yale University (via Coursera), Completed in 2021.

VOLUNTEERING

Climbing Clan *April 2023 - October 2024*
Manchester, United Kingdom

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

- *"Quiero estudiar"* scolarship. 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

Programming Languages
(in order of skill): Scala, Java, Python, Javascript.
Infrastructure: Mostly AWS. Cloudformation, CDK, DynamoDB, Kinesis, ECS, CloudWatch.

OPEN SOURCE SOFTWARE CONTRIBUTIONS

Over the course of my career, I have contributed to numerous open-source projects. These contributions were often driven by project requirements—fixing bugs or adding features necessary for my work. Below are some of my most notable contributions:

- **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 by allowing steps to use outputs produced by other steps. This was done in order to test more complicated scenarios.

SIDE PROJECTS

I have some side projects listed in my personal web site here.