



Daniel Avila

Senior Software Engineer

## CONTACT

EMAIL

[daniel.avila@rottay.com](mailto:daniel.avila@rottay.com)

MOBIL

(+54) 1138702142

(+1) 3054900555

## INFO

DATE OF BIRTH

23 / 04 / 90

NATIONALITY

Argentina

## LANGUAGES

English

Spanish

## SKILLS

Java

Node JS

Solidity

Golang

React

NextJS

Angular

Amazon Web Services

Microservices

Docker

Kubernetes

Kafka / SQS

CI/CD

GraphQL

Postgres

MongoDB / DynamoDB

## LINKS



## Profile

Hi, I'm Daniel, and I am a seasoned Senior Software Engineer hailing from Argentina. I have over 13 years of experience in both backend and frontend development, along with expertise in Cloud Services such as AWS o GCP.

As a tech enthusiast, I am passionate about working on projects that can make a real impact on users. Throughout my career, I have embraced various roles and technologies, allowing me to quickly adapt to any team's needs and requirements.

In 2018, I founded Rottay LLC as a platform to consolidate my freelance projects. While the company is still active, I am currently not engaged in any assignments within this organization.

In addition to my technical expertise, I have a deep interest in Web3, Bitcoin, and decentralized finance (DeFi). I closely follow the latest advancements in these areas, recognizing their potential to transform industries.



## Education

Systems Engineering – National Technological University (UTN)

CABA, Buenos Aires, Argentina.

MAR 2010 – MAY 2017



## Employment History



### Co-Founder & Software Engineer at Rottay

APR 2017 – ∞

#### Functional Requirements:

- Migration of On-Premise Environments to Cloud providers (AWS/GCP).
- Automation of trading strategies in Tradingview with Pine Script.
- SaaS Development Services → Architecture design, development, and deployment of multi-user Applications.
- Design, development, and support of High availability Cloud solutions for Web and Mobile Applications.
- Interactive Voice Response (IVR) → Automate frequent responses allowing the customer to self-manage their queries, create personalized greetings, collect voice and DTMF comments, routing to operators, management of Customer Service queues.

#### Realized tasks:

- » Direct contact with the client. Budgets and estimation of project deadlines.
- » Software Architecture design, development, and code reviews.
- » Management tasks; planning, creating, and tracking tickets in Jira.

#### Technologies used:

Java / Kotlin / JavaScript / Golang / Pine Script / Docker / RDS / DynamoDB / Lambda / EKS / API Gateway / Route 53 / SNS / SQS / S3 / EC2 / CloudTrail / CloudWatch / IAM / Cognito / VPC / CloudFront / CodeStar / CodePipeline / AWS AppSync / Asterisk / IVR.

**Functional Requirements:**

! MARKETPLACE

- Implementation of third-party app integrations such as Slack, Jira, MS Teams, Zapier, Salesforce, Zendesk, etc. This allows users to access and use these services within the platform seamlessly.
- Continual marketplace UI development and improvement to enhance user experience and engagement (<https://platform.securityscorecard.io/#/marketplace>)
- Implementing workflow automation to facilitate automated notifications and changes within customer portfolios.
- Use Micro Frontend with Webpack Module Federation to develop and deploy UI business subdomains isolatedly. This allows for greater modularity and scalability of the application.

**Realized tasks:**

- » Design and validation of the manifest schema for publishing apps using Ajv.
- » Event subscriptions with RxJS to enable event-driven development.
- » Development and maintenance of the Rule Builder to automate processes and simplify workflow.

**Technologies used:**

React / Redux / NodeJs / MongoDB / Postgres / Jenkins / AWS Services / Docker / Webpack.

**Functional Requirements:**

! INTRANET

- Migration of the Intranet from Ruby to Nextjs to unify the stack with the rest of the services. This will enable better collaboration and seamless integration of features across the company.
- Security improvements such as validations by role, an option to force 2FA, and share sessions between the Intranet and the platform to enhance data protection and prevent unauthorized access.
- Generation of logs for auditing purposes and integration with Datadog to track each change made by users. This will ensure accountability and traceability of user actions.
- Support and continuously improve the product to ensure it meets the company's evolving needs.

**Realized tasks:**

- » Development of a Nextjs application with adherence to the Company's UI/UX standards to create a visually appealing and user-friendly interface.
- » Configuration and development of an Apollo GraphQL server to provide a scalable and efficient data retrieval mechanism.
- » Configuration of Jenkins and Dockerize development environments for efficient deployment and management of the application.

**Technologies used:**

NextJs / NodeJs / React / Ruby / GraphQL / MongoDB / Postgres / Jenkins / AWS Services / Docker / Datadog.

Team Leader at Indeed

FEB 2020 - OCT 2020

**Functional Requirements:**

- Led the Design and Development of a Notification System aimed at centralizing communication with users in a single Service. Prior to this project, different micro-services were communicating with the user, sometimes triggering multiple notifications without proper logs.
- Survey and document all sub-systems that interact with users via App (Push Notification) or Email (AWS SNS) and incorporate them into the solution provided. Worked closely with various teams to ensure a smooth transition to production and the replacement of each code fragment.

**Realized tasks:**

- » Coordinated and delegated team tasks to ensure timely and efficient completion of project deliverables.
- » Documented the system's architecture and integrations carried out, which involved creating comprehensive technical documentation that outlined the Notification System's design, implementation, and functionality.
- » Collaborated with different departments within the company to transfer responsibility for sending notifications to users to the centralized Notification System

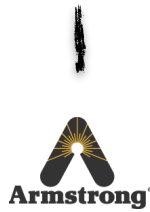
**Technologies used:**

Java / AWS SQS / AWS SNS / Jenkins / MongoDB / Jira Management Tool / Datadog / Docker / Bash / AWS DynamoDB / AWS RDS / AWS S3 / AWS Cloudfront.



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## DevOps at Sage Armstrong

SEP 2019 - FEB 2020

### Functional Requirements:

- Developed an on-premise product version using Docker, allowing customers to install and run the product locally in their own environment. This was particularly important for customers who were in remote locations without internet access, such as oil rigs.
- Replaced the User Authentication module from CAS/SAML 1.1 to Keycloak, which provided a more secure and modern authentication system for the product.
- Developed the Licensing module using License 3j, which ensured that the product could not be stolen or used by a customer who had not paid for it.
- Migrated AWS S3 Buckets to Minio, as cloud services were not available due to lack of internet access
- I Integrated with Salesforce, which allowed customers to synchronize their data between the product and Salesforce, streamlining their workflow.

### Realized tasks:

- » Created an Initialization Script that could initialize all containers and validate the license with a single command, making it easier for customers to install and run the product.
- » Updated the Authentication Services of each sub-system to work with Keycloak, ensuring that all sub-systems could authenticate users securely and consistently.
- » Obfuscated the code with ProGuard, making it harder for attackers to reverse engineer the code and find vulnerabilities.
- » Migrated users from MongoDB to Keycloak, ensuring all users could still access the product after the updated authentication system.
- » Extracted logs and current status of each container, making it easier to diagnose and troubleshoot issues with the product.

### Technologies used:

Docker / Bash / Java / Drupal / Javascript / AWS Services / MongoDB / Postgres / Keycloak / Minio / Rabbit / SAML / CAS / ProGuard / L3j.



## Team leader at Sancor Salud

MAR 2019 - FEB 2020

### Functional Requirements:

- Architected and developed an automated quoting system for families and businesses.
- Coordinated tasks and deliverables to align with Product requirements.
- Designed user interface using Figma for optimal user experience.
- Implemented backend functionalities for seamless data processing and integration.

### Realized tasks:

- » Updated the calculation of copayments in compliance with the current law in Argentina.
- » Extracted statistical reports from associates for the BI sector.
- » Managed version control, environment, and deployment coordination.
- » Estimated development times, delegated tasks among team members, and code review.

### Technologies used:

Java 8 / Angular 6 / MySQL Server / Maven / Hibernate / Auth0 / AWS S3 / Datadog.

**Functional Requirements:**

- Migrated a monolithic Java Application to micro-services in Node, resulting in improved scalability and agility.
- Maintained and supported existing applications, servers, and databases.
- Designed a scalable and cost-effective cloud architecture using AWS services.

**Realized tasks:**

- » Integrated Here Maps into the application to provide location-based services to users.
- » Replaced postal codes with Polygonal Zones to enable more accurate geographic data analysis.
- » Optimized pathfinding algorithm to generate the minimum path between destinations, considering real-time traffic statistics and weather information.
- » Developed a geocoding feature to convert addresses into geo-coordinates and vice versa.
- » Dockerized the application and migrated the database to AWS RDS to improve deployment and maintenance.
- » Designed a secure cloud architecture using AWS IAM, AWS Cognito, AWS Route 53, AWS EC2, AWS S3, AWS CodePipeline, AWS Fargate, and AWS RDB to ensure high availability, fault tolerance, and scalability.
- » Migrate database and services from GCP to AWS.

**Technologies used:**

NodeJS / ReactJS / Java / AngularJS / Hibernate / Docker / MySQL Server / AWS Services.

## DevOps & QA Automation at Nybble Group

MAY 2018 - JUL 2019

**Functional Requirements:**

- Design and develop micro-services to calculate life insurance premiums based on factors such as age, salary, job type, smoking habits, and family group.
- Develop a life insurance claims Management System.

**Realized tasks:**

- » Developed and optimized API performance using Hibernate Criteria.
- » Integrated Swagger for endpoint documentation within the system.
- » Created comprehensive tests for all CRUD operations and critical processes using Katalon Studio.
- » Implemented QA automation, including CI/CD and AWS CodePipeline.
- » Dockerized development environments for consistency and ease of use.

**Technologies used:**

Java / Katalon Studio / Spring Boot / Hibernate / Oracle / Angular 6 / Docker / Kubernetes / Swagger / AWS Fargate / AWS CloudFront / AWS RDS / AWS CodePipeline.

## Team Leader at Nybble Group

**Functional Requirements:**

- Develop a web/mobile application to assist Lyme disease patients by providing personalized medication schedules and dosages, as well as notifying family members and doctors in case of non-compliance.
- Deploy the application on both Apple and Android app stores, managing different versions for various types of devices.

**Realized tasks:**

- » Selected the appropriate architecture (AWS), designed and developed the application model.
- » Coordinated and led a distributed team of professionals.
- » Conducted periodic demos for the client to showcase progress and receive feedback.

**Technologies used:**

NodeJS / React / React Native / AWS AppSync / AWS Lambda / AWS Cognito / AWS DynamoDB / AWS SES.



## Senior Software Developer at Credicoop Bank



APR 2014 – MAY 2018

### Functional Requirements:

➤ Migrate the IVRs of Credicoop, Segurcoop, Cabal Card, and COTO Bank from native Asterisk to Java in order to reduce the call volume handled by the Customer Service Call Center, automating common tasks such as

- Credit and debit card activation.
- Reporting lost/stolen cards.
- PIN generation.
- Account/card balance inquiries.
- Transfers between personal accounts.
- Currency exchange (purchasing dollars).
- Checking Aerolineas Plus points.

➤ Create easily accessible logs for the Business Intelligence (BI) sector.

### Realized tasks:

- » Analyzed, designed the software architecture, developed, and launched the solution into production.
- » Maintained and supported service queues for the Customer Service Call Center.
- » Coordinated tasks between the Technology and Product Management departments.
- » Conducted internal training on Asterisk and IP Telephony.

### Technologies used:

Java / Hibernate / Maven / Asterisk / AngularJS / PHP / Linux / Perl / Python / MySQL Server / Oracle / Bash / C / MongoDB.



## Senior Software Engineer at Tuboscope

NOV 2017 – APR 2018

### Functional Requirements:

- Migrate the Employee Management System from Flex to Angular2.
- Digitize employee documentation using OCR techniques.
- Develop and implement the Income System.

### Realized tasks:

- » Conducted functional analysis and updated existing documentation.
- » Designed the architecture, developed the solution and performed unit testing.
- » Broke down a monolithic backend into microservices for improved efficiency and scalability.
- » Implemented CI/CD processes to automate deployments using Gitlab.

### Technologies used:

Java / Spring Boot / Maven / MySql Server / MongoDB / Tomcat / Bash / FLEX / Angular 2.



## Senior Software Developer at Fiat

DEC 2016 – NOV 2017

### Functional Requirements:

- Maintain and develop the Access Control System.
- Generate anomaly reports and automatically send alerts to the responsible parties for each area.
- Provide automated reporting on access and presence of employees.
- Generate anomalies reports and send alerts to those responsible for the area.

### Realized tasks:

- » Analysis, Time estimates, Development and Documentation.
- » Make demos in the client's office.

### Technologies used:

Java / Spring Boot / Maven / Oracle / Tomcat / Bash / Flex .

### Functional Requirements:

- Integrate with trading API-platforms such as Nasdaq and S&P 500.
- Develop new trading functionalities for bond and asset purchases.
- Improve the UI/UX of the website.

### Realized tasks:

- » Designed and developed internal web pages.
- » Conducted unit tests using Selenium.
- » Incorporated Bootstrap to ensure platform compatibility across various devices.

### Technologies used:

Java / Angular JS / Spring Boot / MySQL / Hibernate / Android / HTML / Bash / Bootstrap / JUnit / Selenium.



## System Analyst at Quateck

MAY 2010 – JAN 2012

### Functional Requirements:

- Design and develop Excel macros, validations, and dynamic tables to provide essential information to those responsible for maintaining the company's accounts.
- Design and Development of the Zika Inventory System. Notification by email in case of non-compliance with the return date.

### Realized tasks:

- » Training to other Employees of the Company on the use and elaboration of macros in Excel.
- » Analysis and coding of Inventory System.

### Technologies used:

Java / JSP / MySQL Server / Office Package.