Harold Camacho
Software Engineer

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Professional Experience

2024/10 – present
Remote, Canada & U.S.

Creator, Software Engineer
Splinter splinter-app.github.io ⧉
- Developed Splinter, an open-source pipeline that simplifies ingesting and processing unstructured data for AI/ML workflows.
- Architected ephemeral AWS-based infrastructure to activate compute resources only during data ingestion, eliminating idle-cost overhead and improving cost efficiency.
- Implemented an event-driven system to enable real-time document processing, where changes at the data source instantly trigger document additions, updates, or removals in vector databases. Improving data freshness and accuracy in knowledge bases.
- Built the entire pipeline infrastructure using AWS CDK for fully automated deployments and teardowns. Reducing manual configuration by 100%.
- Optimized AWS Fargate performance by creating lightweight Docker images and refining resource allocations, boosting efficiency by 70% and reducing ingestion time for a 2.2 MB PDF from 3.5 minutes to 1 minute.
- Integrated non-AWS document stores like Dropbox into the pipeline using DynamoDB, Lambda, and API Gateway, ensuring secure connectivity and a seamless user experience for document ingestion and management.
- Built an Observability Dashboard using React, and AWS WebSocket API Gateway for real-time ingestion insights, powered by AWS Lambda and DynamoDB.
- Developed a RAG Sandbox chatbot that validates ingested data by dynamically interacting with the database.
- Authored comprehensive technical case study, readable at splinter-app.github.io/case-study ⧉

2024/05 – 2024/07
Remote, Canada & Mexico

Freelance, Software Engineer
Cibera
- Developed Recobra Crédito, a financial analysis tool to streamline credit, financial, and sales study processes for a Cibera client, improving analyst efficiency and decision-making speed.
- Implemented a robust backend using C#, ASP.NET ⧉ MVC, Entity Framework, and PostgreSQL, reducing data access complexity and improving maintainability.
- Built comprehensive data models, DTOs, and controllers to support complex credit calculations and financial reporting, ensuring accurate insights for business stakeholders.
- Designed and integrated PostgreSQL databases with Entity Framework, enabling efficient, stateful data tracking.
- Developed React and Ant Design-based front-end components to create intuitive dashboards, improving user satisfaction and reducing training time.

2022 – present
Toronto, Canada

Software Engineer
Open Source Pojects
- Created open-source projects to strengthen development fundamentals:
- RequestBin Clone: tool for collecting and debugging webhooks (Digital Ocean, Nginx, PostgreSQL, MongoDB, Node.js, Express, React)
- Simple Active Record ORM: Designed a Ruby-based ORM following Active Record principles for streamlined database interactions. (Ruby, PostgreSQL, PG)

Education

2021 – 2024

Software Engineering
Launch School ⧉
Multi-year, mastery based software engineering curriculum. Read more at launchschool.com/employers ⧉

2014 – 2019

Bachelor of Music BMus
Humber College, Toronto, ON

Skills

Languages & Frameworks	Cloud	Other Technologies
Ruby, JavaScript, TypeScript, Python, Node.js, Express, Handlebars, Sinatra, React, ASP.NET ⧉ , C#.	AWS CDK, EC2, ECS, Lambda, S3, Batch, DynamoDB, API Gateway.	PostgreSQL, MongoDB, Pinecone, Docker, Nginx, Digital Ocean, Git/Github, RESTful API's, Linux, Bash, Trello.