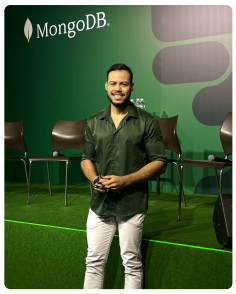
Denis Magalhães

End-to-End Engineer at CoGrader · AI / Forward Deployed

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MongoDB event

I'm an End-to-End Engineer at CoGrader, building software since 2013. I help build Cortex for personalized AI feedback, connecting AI orchestration with document processing, backend services and the user experience.

My work includes focused agents, classification and Gemini on Vertex AI, supported by Go and Node.js processors and reliable background jobs. I bring the same ownership to customer problems: I built a six-platform extension that simplified adoption and helped attract customers and generate revenue.

Current experience

End-to-End Engineer 2025 - Present

CoGrader · Remote

I own initiatives end to end at CoGrader: understand customer needs, help define the solution, build it and follow its impact in production. I help build Cortex for personalized AI feedback and built a browser extension that reduced adoption friction for new customers.

- **AI orchestration:** Orchestrated focused agents and used classification for decisions that do not need an LLM. Gemini runs through Google Cloud Vertex AI, supported by credits received from Google.
- **File processing:** Built file processors with Go and Node.js for multiple formats, including PDFs, CSVs and images, with support for scanned pages and handwritten student work. Redis-backed queues and idempotent processing let jobs retry without repeating their effects.
- **Browser extension:** I owned the browser extension initiative from adoption barriers through delivery. Built it from scratch with React, TypeScript and Plasmo, integrating Canvas, Blackboard, Schoology, Brightspace, Microsoft Teams for Education and Google Classroom. Bringing CoGrader into teachers' existing workflows made the product easier to adopt and helped attract customers and generate revenue.
- **Product experience:** Contributed to notifications, backend services and the React application. Follow releases through production use, using customer feedback and observability to improve reliability and the teacher experience. Our data stack at CoGrader includes BigQuery.

Technical foundation

Backend & file processing: Go, Node.js, TypeScript, Express, Redis, BullMQ, Idempotent jobs, Firestore/Firebase Admin, Python, Zod

Frontend: React, Vite, Astro, Mantine, in-house design system, Tailwind, Plasmo, TypeScript

AI & integrations: Gemini / Vertex AI, Small-agent orchestration, Classification, OpenAI, Anthropic/Claude, Google Classroom, Canvas, Blackboard, Schoology, Brightspace, Microsoft Teams for Education, EdLink, Stripe

Infrastructure & observability: Google Cloud, Azure, AWS, Terraform, Docker, Turborepo, pnpm, GitHub Actions, BigQuery, Dataform, Axiom, PostHog

PRESENTATIONS & KNOWLEDGE SHARING

Organized meetups and workshops to help beginners learn software development. Presented ChatGPT in WhatsApp, covering integration through the official WhatsApp API with NestJS.

Professional experience and entrepreneurship

Velrino · Owner Jan 2013 - Oct 2025

Provided software development services for an iGaming client and built GOATVPN, alongside media technology projects. Worked across CRM development, AI, backend services and cloud infrastructure.

- Built backend APIs with NestJS and MongoDB for an iGaming CRM, incorporating AI capabilities.
- Built GOATVPN infrastructure with WireGuard. The platform included a React/Next.js frontend, MongoDB Atlas, Redis, payment integrations and automated server provisioning.
- Developed a platform that turned TVs in small and medium-sized businesses into advertising displays, using data and automation to support ad delivery.

AdaptaMidia · Hackathon Project Jan 2025 - Sep 2025

Built an AI-powered out-of-home advertising platform connecting Android displays to cloud services, with audience and behavioral insights to help measure advertising results.

- Connected smart displays to Vertex AI, Firebase, Cloud Run, Cloud Storage and MongoDB Atlas.
- Combined dynamic advertising with audience analytics using YOLO, VisionAI and LLMs.
- Reached the first commercial installation at Centro Profissional.
- Received third-place recognition at Adapta 2025. Awarded R$40,000 at the Hackathon and R$100,000 at the Summit, both in cash.
- Installed 100 Android tablets in elevators around São Paulo for the advertising rollout.

GO.K | Inovação Digital · Tech Lead & Senior Software Engineer Jun 2022 - Jan 2024

Built web applications across the frontend and backend while supporting the team's technical development.

- Developed and optimized applications with React and Ant Design, backed by NestJS, MongoDB and RabbitMQ. Used test-driven development and Docker to support delivery.
- Led Individual Development Plans to help engineers identify growth goals and develop their skills alongside project work.
- Presented a ChatGPT integration with WhatsApp using Meta's official API and NestJS.

Trustly · FIC Engineer Sep 2021 - Oct 2022

Worked on integrations between Trustly's payment gateway and US banks using REST APIs and web scraping.

- Developed Java backend services with PostgreSQL for bank integrations.
- Used AWS, Google Cloud and Azure infrastructure to support IP rotation for web scraping.

Itaú Unibanco · Software Engineer Jun 2019 - Sep 2021

Worked in the mobile team, developing Angular WebViews embedded in the bank's Android and iOS applications.

- Used Amazon S3 to host Angular applications and AWS CodePipeline for deployment.
- Worked with Java, Docker and Jenkins in the backend and delivery toolchain.

Investelly · Independent Project Jan 2021 - Aug 2021

Built a decentralized social network where users could buy and sell digital content as NFTs, integrated with Binance Smart Chain.

- Developed the web application with Angular and Bootstrap, backed by NestJS and PostgreSQL. Used Amazon S3 for storage and Heroku for hosting.
- Connected the content marketplace to Binance Smart Chain to support NFT transactions.

Earlier experience

Sthorm · Senior Technology Consultant Mar 2020 - Mar 2021

Provided full-stack development services for ViralCure (viralcure.org).

- Helped build the platform with Angular, NestJS and PostgreSQL, using Docker for containerized development.
- Worked with Git for version control and Scrum with Trello.

Accenture · Software Engineer Apr 2015 - Jun 2019

Worked on a project for Porto Seguro across frontend and backend development.

- Built web interfaces with Angular and Angular Material, and worked with Java and Node.js on the backend.
- Worked with Git, Jenkins and Scrum with Jira in the delivery workflow.

Ingresse · Software Engineer Intern Dec 2014 - Feb 2015

Contributed to backend development with PHP and Symfony.

- Worked with REST APIs, Nginx and Git as part of the application and development stack.

Porto Seguro · Intern Nov 2013 - Oct 2014

Completed an internship at Porto Seguro.

Selected independent projects

Natiely

An independent fantasy game and its surrounding product: gameplay, player accounts, cloud saves, purchases, a web portal, infrastructure, art and audio. I work across the full journey, from building the experience to preparing releases.

- **Backend, identity and saves:** I develop Go APIs with Echo, MongoDB and Redis, integrating Firebase authentication and Google/Apple sign-in. Cloud-save synchronization uses revision checks and idempotent writes to handle retries and conflicting updates across devices. Local gameplay and remote account services have separate responsibilities.
- **Purchases and player economy:** I integrate RevenueCat for native purchases and Stripe for web checkout, with backend purchase verification, webhook processing, Gold balances and coupon flows. Firebase Realtime Database supports wallet updates. Store-specific payment rules stay separate from the game's own economy and interface.
- **Infrastructure and releases:** My work includes Docker, Google Cloud, Cloud Storage, AWS infrastructure and GitHub Actions deployment workflows, plus Fastlane tooling for Android and Apple publishing. I handle build configuration, asset delivery, signing workflows and store materials as part of bringing the product to players.

Unity 6 · C# · URP · Addressables · React · TypeScript · Vite · Tailwind CSS · Go · Echo · MongoDB · Redis · Firebase · RevenueCat · Stripe · Sentry · PostHog · OneSignal · Docker · Google Cloud · AWS · GitHub Actions · Fastlane

ClassGame

Built a 3D learning experience for the All Things Agentic Hackathon, combining adaptive AI tutoring and a teacher dashboard with Next.js, Three.js, Go and Gemini on Vertex AI.

Public repository: github.com/velrino/classgame

EDUCATION

Systems Analysis · Universidade Paulista Sep 2014 – Jun 2016

Full Stack Development · Net Coders May 2014 – Jun 2014

Web Development, Webmaster · SENAI São Paulo Sep 2012 – Jun 2013