Nick Francisci

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Sr. Full–Stack Dev & Eng Leader

Objective

To help humans (and animals!) access life's fundamentals: wholesome food, education, and healthcare. I write software but I most enjoy working on and leading cross-disciplinary teams.

Experience

Koala Health
Pet Pharmacy Startup

May 2021-Present
Ruby on Rails, React, Postgres, and Management

Founding engineer. Manager of eng teams responsible for ops and vet tools (5 of 7 engineers). Implemented critical fixes that secured Koala's Series A round. Created our flagship vet-portal, to which the entire product org was eventually assigned in pursuit of a B-round.

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I joined Koala post-seed as the first full-time employee. The head of engineering and I were the only 2 developers and we developed our pharmacy ops tools from scratch. Personally, I **wrote a majority (~60%) of our foundational, pre-Series A code**. This included our order processing flow, pharmacy management software integration, our customer-facing, branded medication labels, and the front-end stack for our internal tools.

As **Koala struggled to find product market fit**, I shifted to work on our consultant-built, React storefront along with our head of product. I set up Google Analytics, then radically simplified our checkout flow and updated our offering to auto-refills-only. **These modifications succeeded: our storefront conversion rate 4x'd after a month of tuning and all new customers offered repeat business. This directly led Koala from proximate failure to an A-round with 5000 auto-refill customers**.

After our A round, I pivoted to ops improvements. During this period, the most impactful and complex system I built **allowed our customer service and ops agents to login as a customer**, while preserving the confidentiality of the user's login info. By granting access to the customer's tools, this radically reduced the number of tools we needed to build for ops.

As we began to hire, I continued to deliver code improvements but focused on team-building. I **wrote our take-home interview questions for front-end and back-end, which 75% of our 40+ interviewees chose** in lieu of a live initial interview. I ran every tech assessment. From this process we ultimately hired 8 new engineers.

I onboarded each engineer and reviewed their initial code-contributions to guide them towards our established patterns. I enjoyed the 1-on-1 work this entailed, but the rapid growth required new processes. To this end, I created **an On-Call 'Runbook'** to record solutions to common issues, **documented back-end code-standards** for the org, and established a **UI component library** for our internal tools.

Simultaneously, I also solo designed and created our **vet-facing prescribing portal, KoalaVet.** Then, **our head of eng left**. I became the manager of the ops and vets engineering teams while another engineer took charge of the consumer team. This change meant 5 of 7 engineers were now my formal reports.

As a manager, my primary role was to **break down silos in the org**, especially between our remote product/eng team and our sales, ops, and customer service teams. To further this goal, I introduced an optional, but popular virtual office space (gather.town) and initiated cross-functional meetings to ensure our line operators had a voice in our product design.

Meanwhile, **KoalaVet - my creation - gained traction.** Thanks to our sales team, **50+ vet clinics signed-up and KoalaVet became pivotal to our company strategy**. In August 2023, with 15,000 customers and approaching Series B, **Koala's CEO assigned every product manager, engineer, designer, and analyst to work on KoalaVet**. That's where we are today, though the adventure continues.

Pillpack / Amazon
Pharmacy Startup

July 2017-April 2021
Ruby on Rails, Postgres, and Management

Developed our highest-volume fulfillment process. Became tech-lead for catalog, inventory, procurement, and cost accounting pre/post Amazon acquisition. Managed the team responsible for fulfillment's quality assurance and legal compliance.

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I joined Pillpack's fulfillment engineering team as my first job out of college. I cut my teeth on a solo project to prevent cross-contamination with sulfa drugs (a common allergen). I then joined a longer, 3-person project that

overhauled our billing from month-to-month payments to per-shipment payments, better adhering to e-commerce standards.

I then began on my first major, solo project: an automated filling workflow for pill-bottles. **Up until this moment, all pill-bottle fills were done by hand, taking 4.4 minutes per fill and constituting a slight majority of our fills**. Our mechanical engineer had found a bottle-filling robot to speed up the process but to incorporate it, we needed to completely overhaul the human and software filling workflow.

To redesign this workflow, I interviewed the pharmacy operators, analyzed our fill data, and proposed 3 options to our engineering and ops leadership. The workflow I implemented included **a complete rework of how operators' work was batched and sequenced, and how they retrieved inventory from storage. The new process took 0.5 minutes end-to-end (an 89% reduction) with a near zero error rate and no engineering support. By the time I left Amazon, >1M bottles had been filled through the workflow I designed.**

From there, I led an effort to revamp our prescription, catalog, inventory, and cost-accounting systems. Since these systems had been established, we'd learned that they had deep flaws that drove high engineering support volumes and prescription errors. **Redesigning and migrating our data to allow new safeguards could prevent up to 25% of our quality defects**. In the redesign and migration, I worked closely with 2 pharmacists and was assisted in implementation by 2 engineers.

In the midst of this project, Pillpack was acquired by Amazon Pharmacy and this 'catalog' project took on a new meaning. **Amazon's engineers had been struggling to devise a fully consistent catalog design. However, Pillpack's cross-team pharmacist and engineering work had already resolved the flaw** by reconsidering the pharmacy as a manufacturing operation rather than a warehouse. Thus, **when [Amazon Pharmacy](#) launched in November 2020, our design was the foundation on which Amazon cataloged, presented, and fulfilled orders**.

After the catalog work but before Amazon Pharmacy's launch, I was **promoted to manager and assigned a 3-engineer team** to work on fulfillment quality and compliance. On this team, we made many improvements to our medication literature (including **translation into 14 languages**) as required for the 2020 Amazon Pharmacy launch. Then, in partnership with a German machine learning team, the team piloted, rolled-out, and maintained **a weight-check that prevented shipments from going out if they contained even one pill too many or too few**.

In addition to these projects, I took pride in supporting the team at large. **I participated in more than 100 interviews, made the successful promotion case for one of my reports, resolved 5% of all of the engineering support tickets during my employment, and even set up a book donation and lending library in our office 📚!**

Other Experience

AthenaHealth, *2016* - Full-Stack Software Intern

Grove Labs, *2015* - Full-Stack Software Intern

Olin College, *2015* - CA for Computer Networks

iD Tech Camps, *2014* - Instructor, Java et al.

Olin College, *2014* - CA for Software Design

Education

Olin College of Engineering, '17
BSc. Eng - Computing. 3.79 GPA

Other Notables

Game Developer. Debut title, **Forum Mortuorum**, [listed on Steam](#)

Author, published on *Better Programming, Medium's* largest programming publication with 200K subscribers. Handle: [@nickfrancisci](#)

Mentor, Olin's Banter Program (2021-Present)

AWS Certified Developer (2021)

Mech. / Manufacturing Lead, Brightbox (2017) Contributed to a multi-year capstone project developing an educational optics kit for Agastya Intl Foundation for manufacture and deployment in Andhra Pradesh, India. Included site visits to Agastya's workshop and to rural Indian schools for testing and iteration

Co-Founder, Foundry Idea Testing (2016) Entrepreneurship intensive. Olin's first ever winter-session program

Speaker, Source Security Conference, (2015) *"Getting the data out using Social Media"*

Eagle Scout, Troop 100 (2012)

Skills

Ruby (& Rails), Python, C#. Limited Java, C, C++. HTML, CSS, Javascript (& React, Node). SQL (& Postgres). Limited NoSQL (& Mongo). Git. Limited AWS. Mockups (& Photoshop). People & Project Management.