Matthew Livingstone
Senior Developer

Versatile developer with over 16 years of experience including full-stack web development, mobile applications, micro-controllers and embedded systems, as well as desktop applications. Involved in the requirements analysis, architecture, design, development, quality assurance, implementation, release, and support of products.

Experience

Clio
2023 - Present

Senior Full-Stack Software Developer

- Implemented Shared Contacts (contact synchronization between products)
  - Contacts sent over Kafka in one direction
  - Contacts sent in the other direction via an existing API
  - Built onboarding job to do an initial sync between both products
  - Changes were audited, should data restoration have been required
  - Functionality was one of the top requested features of users with both products
- Implemented and improved a Data Leak Query Checker, which determined if SQL queries were leaking data across user accounts
- Added support for MySQL multiplexing to Rails via a custom adapter for ProxySQL
- Built FIFO outbox queue to ensure messages sent by automations are delivered

Thinkific
2020 - 2023

Senior Full-Stack Software Engineer

- Added functionality to allow multiple types of products to be sold
- Refactored large portions of the Rails monolith to allow products to be used more generically
- Added support for multiple Stripe accounts in the Rails monolith
  - Updated all Stripe gem calls across the monolith
  - Created helper classes, making this change *almost* transparent to other developers
  - Automatic detection of which Stripe accounts a new user should use
  - Added callbacks for Stripe webhooks to keep Stripe accounts in sync, including coupons, products, and prices

Personal Info

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Primary Languages and Frameworks

Ruby/Rails
React
JavaScript
C#
.NET
VueJS
NodeJS
Dart
Flutter
HTML / CSS / SCSS

Other Languages

C (Embedded)
Python
PHP
Java/Kotlin (Android SDK)
SQL
Go

Other Technologies

Git, GitHub, GitLab
Subversion
Docker

- Drastically improved performance of Sidekiq jobs
  - Reduced memory footprint by disabling ActiveRecord caching
  - Reduced execution time by over 100% by using raw SQL instead of ActiveRecord (execution time dropped from several hours to minutes, in some cases)
  - Encouraged the move to Sidekiq enterprise
- Worked on Team Voltron (defense team)
  - Fixed bugs across all products, including finding and fixing issues in 3rd party services (Wistia)
  - Added support for charging taxes to users based on their location
- Involved in take-home test marking, onboarding, and mentoring

(Notable) Freelance & Personal Projects   2008 - Present

- Converted a VB6 application to .NET with an API, for local company
- Anonymous check-in check-out application for contact tracing
- COVID-19 record-keeping application for medical clinic
- Telegram bot written in Go on a VPS
- Source server RCON application for Android

BESTECH / SHYFTinc   2012 - 2020
Developer

- Lead for new ADMMIT platform development
  - From proof-of-concept to delivery to a multi-national client in 2 months
  - Embedded development on ESP-WROOM SoC
  - Cross-platform mobile development with Dart/Flutter
  - Web front-end development in Vue
  - Web back-end development in .NET Core
  - Deployed on AWS (EC2, RDS, S3, ElastiCache)
- Took on role as Scrum Master when the team shifted to Agile methodologies
  - Running sprint planning, review, and retrospective sessions
  - Running daily stand-ups
  - Setup and managed the kanban boards (LeanKit)
  - Helped encourage the other team members to adopt the Agile methodologies
- Architected changes for the next major version of NRG1-ECO (Ventilation Control Software), and built proof-of-concept to demonstrate the speed, reduced hardware requirements, and technology choices which included
  - .NET Core
  - Redis
  - OPC UA
- Helped design, build, test, deploy, and support enhancements to NRG1-ECO, including development of a new auto code-generation engine for soft PLCs
  - Encouraged migration to web-based UI, RESTful APIs, and Git

- Inherited and vastly improved e-WorkSafe application for the Electrical Safety Authority (ESA)
  - Hybrid mobile application, using Apache Cordova
  - Improved performance when processing large data sets
  - Improved security for image transfer and storage
  - Added PDF generation for reporting and auditing
  - Added Windows 8 support
- SAP Business Objects experience (WebIntelligence and IDT)
- Involved in interviews, onboarding and training

Sunwire Inc   2010 - 2012
Developer

- One of the lead developers for SolSwitch, their Asterisk-based private branch exchange (PBX)
  - Improved uptime and helped scale the system to support a call center with hundreds of employees
  - Improved login security and helped mitigate malicious access attempts
  - Helped track down memory leaks in C-based plugins
- Wrote firmware for PIC micro-controllers:
  - To interface with Toothpick Bluetooth chipsets to communicate with mobile devices
  - That was combined with other hardware, and used to detect Rapid Eye Movement (R.E.M.) sleep

MIRARCO   2008 - 2009
Developer

- Helped develop mining data visualization application, ParaViewGeo
  - Developed new plugins, including a DXF reader
  - Improved existing plugins, with performance increases up to 50%
  - Setup and maintained build machines for testing

Education

Laurentian University   2007 - 2010
Bachelor of Computer Science, with Honours (H.B.COSC.)