



# Louis Byers

Software Engineer/Manager

United States, Eugene, Oregon, US, 97405

(541) 905-5508

[louis.byers76@gmail.com](mailto:louis.byers76@gmail.com)

English, French

## BACKGROUND

### ABOUT

With over 17 years in software development, I'm a dedicated problem solver, finding fulfillment in crafting innovative solutions through technology and collaborative efforts. My journey is marked by a steadfast commitment to developing approaches that extend beyond immediate challenges. I prioritize not only building robust software but also ensuring its long-term maintainability. I firmly believe in the collective success achieved through teamwork, recognizing that our greatest achievements are forged together.

### WORK EXPERIENCE

#### Director of Engineering, [Emergent](#)

Mar, 2025 - Present

Emergent is focused on being a partner in providing best in class Fire and EMS solutions. I am proud to be part of a team that is dedicated to improving public safety and the lives of those who serve their communities. I am excited to be working on a project that will help to meet our first responders' needs as they evolve. I am especially energized by our focus on being their partner and not their vendor. We engage actively to innovate with them, not for them.

#### Senior Software Engineer, [Emergent](#)

Aug, 2024 - Mar, 2025    6 months

Concentrated on server and infrastructure design and implementation to support Fire and EMS solutions. I especially worked to ensure the smooth integration of our multi-faceted offering.

- Working with many technologies to include: FastAPI, Postgres, AWS (Lambdas, DynamoDB, S3, SQS, ECS, ECR, RDS, EC2, Api Gateway, Route53, ACM), SvelteKit, iOS/Swift, Github Actions, Docker, Dev Containers, and Terraform.

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### Staff Software Engineer, [Twenty Ideas](#)

Jun, 2023 - Aug, 2024      1 year 1 month

Focused on full stack web application development in healthcare, our team's mission centers on improving remote patient monitoring and chronic care management, aligning with the shift towards value-based care. I'm proud to be leveraging technology to transform healthcare delivery and improve patient outcomes. It is a privilege to be part of this innovative journey in advancing healthcare.

- Integrating call centers and medical device telemetry, assembling these elements into a unified platform. This consolidated interface is designed to streamline the work of clinicians, providing them with a centralized view of disparately sourced data to provide more efficient care.
- Working with a TypeScript and React stack, the application operates entirely with AWS Lambdas and a Cloudfront Distribution. The infrastructure is meticulously structured and managed using AWS CDK, ensuring a scalable and robust system.

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### President, Code Byers Consulting LLC

Mar, 2023 - Present

Single member LLC offering software development consulting services. These services include design, development, planning, existing technology and process evaluation and improvement.

- Assisted in development of a new open source Open Badges 3.0 implementation written in Typescript using SvelteKit, Vercel, Prisma, Postgres, and AWS.

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### Senior Software Engineer, [Chairish](#)

Jun, 2022 - Feb, 2023      7 months

I worked with a small team to support the company as it expanded into Canada and Europe. The application was written in Python using the Django Framework and hosted in AWS.

- Designed and built new features to include data modeling and migration strategies. Special care would need to be taken due to several tables having millions of rows.
- Established and supported IDE integration with a new docker based local development paradigm.
- Migrated engineering operational strategy to be compliant with a docker based production deployment environment and to allow developers to monitor the progress and status of long running tasks.
- Created integrations with external customer engagement partners using REST based APIs with class based interfaces at the edge of the integration.
- Technologies: Docker, Python, Django, Tastypie, JavaScript, HTML, jQuery, MySQL, Linux, Git, REST, Amazon Web Services (AWS), JIRA, Bitbucket, Celery

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### Engineering Manager, [Instructure](#)

Apr, 2022 - May, 2022      1 month

Executed technical transition of Badgr <https://badgr.com/> (now Canvas Credentials) codebase to new development team members and management.

- Technologies: Spring Boot, Kotlin, Angular, AWS, Terraform, MongoDB, Django, MySQL, Docker, Git, Linux, Azure, Cosmos DB, Grafana, Influx, Jenkins, Graylog, JIRA, Bitbucket, Github, Celery

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### Director of Engineering, [Concentric Sky, Inc.](#)

As a Director of Engineering at Concentric Sky, I wore many hats. I still performed platform lead duties for the LRNG portfolio, while maturing our engineering organization. I maintained direct contribution to code. I was responsible for the professional development of 13 engineers and worked to find opportunities to keep skills relevant to current technical trends. I often acted as the bridge to product, design, systems reliability engineering, and quality assurance. It was enriching to learn about other considerations for business needs from the perspective of those disciplines.

- Developed monitoring plans and proactively evaluated logs and metrics to identify performance bottlenecks and user pain points in the running applications. (Graylog, Cloudwatch, AppOptics)
- Advocated for processes and standards for code reviews to ensure actionable and relevant feedback. (Bitbucket, GitHub)
- Converted the LRNG online learning platform to be a reliable, maintainable, extensible, and flexible web application. We had full infrastructure as code and automated deployments. <https://www.home.lrng.org> (Scala, Play, ScalaJS, AWS, Jenkins, Terraform, MongoDB, Elasticsearch, React)
- Performed R&D and coding to operationalize a machine learning semantic search engine utilizing a micro services based framework and natural language processing, to include creation of infrastructure as code. (Python, JinaAI, Kubernetes, AWS, CloudFormation, AWS CDK, TypeScript, Jest, GitLab, CI/CD, PyTest)
- Forked and customized a licensed version the LRNG application, to provide a LMS for studies to support the PBS show Hero Elementary. This included QR code login for the young students. <https://www.pbs.org/parents/shows/hero-elementary> (Scala, Play, ScalaJS, AWS, Jenkins, Terraform, MongoDB, React)
- Led the Badgr engineering team to create the premier solution for B2B and internal tracking of continuing education and achievement, primary driver of the Open Badging 2.0 spec, since acquired by Instructure. In use by Walmart for internal skills tracking. (Kotlin, Spring Boot, MongoDB, Docker, AWS, Terraform, Django, MySQL, JIRA, Git, Bitbucket)

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### Platform Lead, [Concentric Sky, Inc.](#)

Mar, 2016 - Mar, 2018 2 years

Returning to Concentric Sky, I was the technical lead with several (2-4) other developers to take ownership of the software portfolio of the LRNG organization. Along with designing and implementing features, I made technology evaluations taking into account velocity of development and total cost of ownership.

- The Glasslab Games project was truly one of a kind. With the support of Electronic Arts, Glasslab Games set out to prove that educational games were effective learning tools. The platform was feature complete by the time we took over. We were responsible for maintenance and upkeep of this great product. <https://www.edsurge.com/news/2018-12-12-glasslab-set-out-to-prove-games-could-assess-learning-now-it-s-shutting-down> (Node, Express, AngularJS, MySQL, AWS, Git, GitHub)
- The LRNG online learning platform was in its genesis at this time. It was based on the Glasslab games architecture which in the end proved not to be a good fit for the goals of the company. We maintained and implemented features needed for the current pilot programs to succeed while simultaneously planning and building a replacement. <https://www.home.lrng.org/learners> (Node, React, Couchbase, AWS, Git)
- For all products of the LRNG portfolio, I championed and coordinated the transition from manual devops to an automated process. (Jenkins, AWS)
- Routinely converted product designs into logical technical steps for the team to design and implement. (JIRA)
- In this time I became a Certified Scrum Master and utilized Agile methodologies in our development process. (Agile, Scrum)
- I augmented an existing team by providing load and stress testing to their product using Gatling. (Scala, Gatling, Django)

With the University of Oregon's Center on Teaching and Learning, I designed and built an educational game ecosystem for the iPad. Our goals were to offer educators a system for assigning and monitoring educational game use on the iPad. Additionally, each game would offer telemetry which could be used both for efficacy studies and for educator report dashboards. I also worked on the Dibels Data System used by over 30,000 schools.

- Designed and built an iPad and web based educational game ecosystem. This system allowed teachers to use a web interface to assign individual students lesson plans of games. It could include specifying particular levels and time limits. I also wrote a student iOS application which was the entry point for executing these lesson plans. I wrote developer documentation for game developers and wrote both a Unity and iOS universal binary library that developers could use to participate in the ecosystem. (iOS, Objective-C, Unity, C#, Git, Node, Express, MongoDB, Apple MDM)
- Working with the Dibels Data System was my first experience working with such a large scale MySQL database. It was large enough that it needed to be sharded which brought special considerations to queries and performance. <https://dibels.amplify.com> (PHP, Zend, AngularJS, REST, Git, MySQL, Trac)

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## Software Engineer, [Concentric Sky, Inc.](#)

Jul, 2007 - Apr, 2014 6 years 8 months

In this position I worked on a wide variety of educational products and one Electronic Health Record product. This included some very well known brands such as Encyclopedia Britannica, The World Bank, and Cengage Learning. These products were delivered using both Web and iOS.

- DAPlus for Cengage Learning. I spent many years working on this product and migrated it from a CD installation to a web based solution. The CD based implementation installed a tomcat server with SQLite and launched a XULRunner embedded browser. I rewrote this application in 9 months using JBoss/Seam and jQuery so that students would no longer need to install it on their computers. The interface for the web based implementation can be seen here: <https://www.youtube.com/watch?v=4Skd0oHvDKE> (Java, Javascript, jQuery, MySQL, Jboss Seam, XULRunner, Tomcat, SQLite, CVS, Subversion)
- Diet and Wellness Plus is still the current application for diet and wellness used by Cengage Learning. We combined two Cengage products a behavioral wellness tracker and a diet tracker for the latest iteration. This application was written as a SPA using a REST interface. It was built with Spring and AngularJS. <https://www.cengage.com/c/diet-and-wellness-plus-1e-cengage/9781285856216PF/> (Java, Spring, AngularJS, MySQL, Subversion, Git)
- Encyclopedia Britannica Kids was my first iOS application. My main responsibilities were the articles, the jigsaw puzzle, the media gallery, and designing a system for data ingestion and input so we could develop and release apps for various topics. We ended up making 10 of these apps. The Ancient Egypt one even made the Apple gold image for display iPads. <https://edshelf.com/tool/britannica-kids-ancient-egypt/> (iOS, Objective-C, Django, Git)
- Encyclopedia Britannica app for iOS. I worked on many parts of this app; the highlight for me was ideating with the client and designing and implementing the Link Map feature. This used a force based graph to display related articles in an intuitive manner to encourage exploration of topics. <https://apps.apple.com/us/app/encyclopaedia-britannica/id447919187> (iOS, Objective C)
- The World Bank Doing Business report is a large document, but we distilled it into an intuitive user interface at Concentric Sky. The Doing Business at a Glance app was an opportunity to work with a client who needed yearly updates and an application design that accomplished that. <https://www.infodocket.com/2012/03/09/reference-doing-business-at-a-glance-2012-ios-app-from-world-bank-group-free/> (iOS, Objective-C, Git)
- The World Bank at a Glance app was a chance to explore trying to make more accessible an organization whose day to day efforts are not in the spotlight. <https://www.facebook.com/worldbankpublications/posts/free-world-bank-at-a-glance-app-check-it-out-along-with-a-selection-of-other-app/533005040059253/> (iOS, Objective-C, Git)

- iConx EHR Interface for iOS. While I did some work on the iPad interface, the majority of my time on this product was spent on the Java middleware which provided the interface to the MSSQL EMR database. I even found and provided a fix for a bug in Hibernate encountered while working on this project. [https://issuu.com/emergenthealthcare/docs/iconx\\_ipad\\_brochure](https://issuu.com/emergenthealthcare/docs/iconx_ipad_brochure) (iOS, Java, Hibernate, Spring, MSSQL, Subversion, Git)
- KinderTek was a collaboration with the University of Oregon to improve Math outcomes for students. It was a multi-media approach which engaged students to learn early math skills. I am rather proud of an early character recognition algorithm I implemented to help students with drawing numbers. It was progressive in that it allowed students to watch a 'turtle' do the proper strokes, then allowed them to control the turtle, then allowed for free writing which was judged by the algorithm. It wrote the system generic enough that it could be used not just for numbers or letters, but for whole sentences if needed. <https://kindertek.com> (iOS, Objective-C, Git)

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### Avenger Crew Member, [United States Army](#)

May, 2002 - May, 2005      3 years

Performed duties under stressful conditions to standard while deployed to Iraq.

- Achieved rank of Sergeant (E-5) at 18 months time in service.

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### Airline Caterer, Flight Line Inn

Aug, 2001 - May, 2002      8 months

This was a fun job where I drove on the flight line to deliver food and drink to airplanes. We also made the food and cleaned and prepared the carts used by flight attendants.

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### French and Spanish Teacher, [John F. Kennedy High School](#)

Jan, 2000 - Jun, 2001      1 year 5 months

I taught Spanish 1, French 1, and French 2 to high school students grades 9-12. I was also the assistant coach for the soccer team. I received a FIFA class C coaching license from the Japanese Football Association (JFA).

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## SKILLS

### SQL

MySQL    Postgress    MSSQL    SQLite

### NoSQL

MongoDB    ElasticSearch    Couchbase    Cosmos DB

### RESTful APIs

Swagger    OpenAPI

### Containerization

Kubernetes    Docker

### CI/CD

GitLab CI/CD    Automated Testing    AWS    Jenkins

## ORM

Hibernate Django

## JavaScript

ES6 TypeScript jQuery ScalaJs

## Node.js

Express Next.js NestJS

## Angular

AngularJs Modern Angular

## React.js

Class based Components tsx

## Version Control

Git Github BitBucket Subversion CVS GitLab

## Agile Methodologies

Scrum standup

## HTML

HTML5 XHTML

## PHP

## Mobile

iOS Swift Objective-C

## Python

Django Celery Machine Learning JinaAI scikit-learn

## JVM

Java Scala Kotlin Groovy Hibernate Spring SpringBoot JBoss Seam Tomcat

## Hybrid

Cordova Phonegap XULRunner

## Linux

## Documentation



JavaDoc Docstrings Swagger/OpenAPI

## Management Tools

JIRA Trac Monday Gant Charts

## Infrastructure as Code

Terraform AWS CDK CloudFormation

## Load Testing

Gatling The Grinder

## Cloud Hosting

AWS Azure

## Monitoring

AppOptics Grafana Influx Graylog CloudWatch

# EDUCATION

## Linguistics, Bachelor of Arts, University of Oregon

Sep, 1994 - Jun, 1998

## Computer Programming, , Lane Community College

Sep, 2005 - Jun, 2007

# CERTIFICATES

## Scrum Master Certified (SMC), Scrum Alliance

Issued on: Dec 01, 2016

## Spring: Framework in Depth, LinkedIn

Issued on: Feb 14, 2023

# INTERESTS

## Sports

Soccer Futbol

## Games

Board Games Video Games

## Outdoors

Hiking Forests Snorkeling



## Family

Bonding

Next Generation

Caring

## REFERENCES

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### Jeff Bennett

Louis is my favorite manager I've ever had and I learned a lot about how to be a leader from him. I'll always appreciate the opportunity he gave me to step into his shoes and respect the role he filled in the team. He's an excellent developer and an even better person.

### Ken Delsere

Louis is an exceptionally talented engineer and leader. He welcomed me to a team of engineers of the highest caliber with grace and efficiency. It felt like no matter what came up, Louis could handle it with utmost skill and speed all while allowing me to learn vast amounts of new skills and technologies. He is a pleasure to work with, and an excellent source of motivation and wisdom for all around him.

### Julian Bain

Louis has the technical chops to be the core of the engineering operation from front-to-back, but all the more, is someone who elevates the productivity and capabilities of those around him. A rare combo I've had the good fortune to benefit from working with.

