

# HARRY COLLINS

S O F T W A R E / P Y T H O N E N G I N E E R

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## KEY SKILLS

Embedded Systems  
Healthcare Technologies  
HL7 Integrations  
Project Management  
Software Engineering  
Cost Savings  
Communication  
Machine Learning & Deep Learning Techniques  
Simplified Deployment  
Entrepreneurial & Startup Operations  
Database Schemas  
Debugging  
Scalability  
Server-Side  
Quality Standards  
Problem-Solving  
Mentoring  
Computer Science  
Leadership Skills  
Agile

## EDUCATION

BACHELOR OF SCIENCE,  
ELECTRICAL ENGINEERING  
*New Jersey Institute of Technology*

COURSERA MACHINE  
LEARNING  
*Stanford University, 2019*

## PROFESSIONAL PROFILE

Highly skilled and motivated software professional with experience in gathering and translating user requirements into functional features and actionable designs, and customize for jobs that are embedded development using Python. Possess extensive experience in full lifecycle software engineering, development, programming, quality assurance, support, and implementation. In-depth knowledge of software technologies, architectures, and platforms with the ability to apply them to cutting edge software, systems, and applications. Outstanding ability to gather and translate complex user requirements into practical, cost-effective software solutions and provide technical guidance.

## EXPERIENCE

### INDEPENDENT CONSULTANT / SOFTWARE LEAD

*Altai Technologies / 2015 – Present*

#### *Projects include:*

Mobilion Systems ([www.mobilionsystems.com](http://www.mobilionsystems.com)) – Subcontracting for Sunrise Laboratories

- Led the development of a web application that controls a revolutionary advance in Mass Spectrometry.
- Architected and implemented RESTful API services, Python, Django/DRF and Docker.
- Created and implemented a CCS calibration process.
- Enabled the rapid development and delivery of software features by introducing a “testable architecture”.
- Designed a Python codebase with 1500+ unit tests and +85% coverage, leading to stable software releases.
- Exceeded target with <2PPM accuracy by creating a Mass Calibration procedure.
- Increased instrument throughput by 200% by optimizing data processing of data collection.
- Reduced user overhead and increased accuracy by automating calibration procedures.

Golden Hearts Gaming

- Created infrastructure in AWS to launch a gaming website and automate updates.
- Enabled data analytics team to generate operational reports by creating an ETL transfer between AWS and GCP.

Vapotherm

- Identified and fixed an existing low-level communications driver issue to eliminate intermittent failures in legacy codebase.
- Met requirements for sale in European market by updating legacy code base for a neonatal respirator.

## EDUCATION

COREPOINT WEB SERVICES  
TRAINING  
2016

COREPOINT LEVEL I & II  
TRAINING  
2015

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## TECHNICAL SKILLS

- Open-Source technologies (Google Cloud, AWS/GCP, Python, Nginx/Gunicorn, GitHub, Django/DRF, Flask)
  - Database development (MS SQL, MySQL, PostgreSQL)
  - HL7 Integration (Mirth, Corepoint)
  - PCI, HIPAA, GDPR & other security, compliance, & privacy
  - Healthcare data interchange formats, e.g. HL7, X12 (claims processing)
  - Continuous Integration & Delivery (CI/CD)/Deployment using Jenkins, GitHub & CircleCI
  - DevOps
  - PyTest
  - Web Development
  - JavaScript / JS Frameworks
  - Docker
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## ADDITIONAL EXPERIENCE

DIRECTOR OF  
ENGINEERING  
*Uproar Ltd. (Acquired by Vivendi  
Entertainment  
1999 - 2000*

## EXPERIENCE CONTINUED

Lighthouse Data Holdings, mobile app venture

- Managed cloud-based deployments and operations, as well as CI/CD using CircleCI to Google Cloud.
- Created/documented (OpenAPI/Swagger) JWT secured RESTful API.
- Designed and implemented a mobile app including architecting backend systems utilizing open-source technologies (Google Compute Engine, Python/Flask, SQLAlchemy & MySQL). The first product, Image Improv, is a photo-gaming app to crowdsource metadata for image libraries.
- Developed JQuery administrative management tools.
- Created dashboards to monitor KPIs.
- Drove development and delivery using TDD practices.

Zwanger-Pesiri Radiology, Long Island NY

- Oversaw HL7 infrastructure integrations (planning, upgrades, operations, and disaster recovery) using offshore resources to provide 24/7 coverage.
- Created automated testing of HL7 infrastructure (continuous integration and delivery).
- Coordinated regularly with multiple vendors and inhouse staff while developing HIPAA compliant solutions
- Introduced business requirements for internal and B2B integrations.

### **DIRECTOR, HEALTHCARE SOLUTIONS / MANAGING PARTNER EPAM Systems / Netsoft USA (Acquired by EPAM Systems) / 2000 – 2015**

- Ensured successful integration of Netsoft USA's former business relationships with EPAM's operations.
- Advised clients on HIPAA security/privacy/compliance certifications.
- Developed RFP responses in collaboration with the sales team.
- Led the development of EPAM's Healthcare Group Knowledge Management System (Confluence).
- Oversaw the activities of a staff of 20 onshore engineers, providing developers roadmap to develop talent in house.
- Chaired the PMO and served as Head of Talent Acquisition.
- Established interview process guidelines and cultivated relationships with local universities.
- Served as SME at industry-specific conferences and events, presenting healthcare system solutions at industry conferences.
- Maintained company's internal technical infrastructure (VOIP system, servers, backups, and business continuity).
- Directed engagement with critical clients, working with onshore and offshore staff to oversee major architectural and delivery milestones.
- Architected PCI and HIPAA compliant solutions.

### **Key Achievements:**

- Successfully closed sales with key clients, meeting revenue requirements of acquisition through strategic leadership of sales and technical teams.
- Built and maintained a talent pipeline by establishing an internship program.
- Led team to achieve ISO 9001 certification of company's agile processes.
- Created a Solution Architecture group focused on best practices and new technologies.
- While updating prescription database for client Teladoc, decreased licensing costs by 75%+ through collaborations with drug database supplier to change subscription to actual physician usage of Cerner data.