

# JAMES HART

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[LinkedIn](#) | [GitHub Repos](#) | [GitHub Blog](#) | [GitHub Resume](#)

Senior software engineer with 10+ years of professional experience in full-stack development and DevOps practices in agile environments across finance and other industries. Proven track record in building a wide range of scalable, high-performance applications and improving on existing system architecture. Extensive automation experience. Strong background implementing CI/CD pipelines and secure Cloud hosted environments to streamline deployment of microservices and multi-tier applications. Specializing in Python, .NET, and JavaScript.

## SKILLS

**Languages:** Python | .NET (C#/F#) | JavaScript | Rust | Java | PowerShell | Go | PL/SQL | T-SQL

**Development Frameworks:** ASP.NET Core | Python Flask | JavaScript: React, Node.js, Bootstrap, Angular | Spring Boot

**Databases:** SQL: Microsoft SQL Server, Oracle, PostgreSQL | NoSQL: Redis, MongoDB

**Development Methodologies:** Agile | Domain Driven Design (DDD) | Test Driven Design (TDD)

**DevOps & CI/CD Tools:** Azure DevOps Services | Jenkins | GitHub Actions | Docker | Git | TFS | Bitbucket | Octopus Deploy | TeamCity | Jira

**Cloud Platforms & Services:** Microsoft Azure | Okta | Heroku

**Configuration Management:** Chef | Ansible | ARM Templates

**Application Monitoring:** ITRS | New Relic | PRTG

**Messaging Systems:** AMPS | Redis Pub/Sub | RabbitMQ | RESTful APIs

## HONORS & ACHIEVEMENTS

- Built an Angular web application backed by a Python-Flask API to automate server information management, significantly improving software deployment processes
- Developed Pester scripts adopted by development teams company-wide to automate validation of application configurations during software upgrades, reducing manual effort by 99% (from 2 days to 30 seconds) and significantly minimizing troubleshooting time
- Automated the creation and configuration of Hyper-V Windows VMs using PowerShell and Chef, reducing setup time by 98% (from 2-4 days to 30 minutes)
- Automated software deployment processes using PowerShell including inserting XML data into databases and IIS configuration, decreasing setup time by 98% (4 hours to 5 minutes)
- Recognized twice at the company level for exceptional impact as a senior member of a small team, significantly improving company-wide development processes and setting new standards for efficiency and collaboration
- Recognized for excellence in managing complex release processes by ensuring comprehensive and compliant documentation that met external regulatory requirements, streamlining workflows, and enhancing team efficiency
- Featured interviewee on Pluralsight's [All Hands on Tech Podcast Episode 056](#) – Upskilling Tips and Tricks with Developer James Hart

## EXPERIENCE

### Software Engineer III

Bank of America – Houston, TX

02/2022 – Present

- Designed and developed scalable and resilient microservice-based systems for commodities market data management contributing to continual, iterative improvements for multiple trading desks
- Executed software solutions for curve marking features that eliminated dependency on spreadsheets, improving data integrity and user efficiency
- Performed technical troubleshooting for and led the successful transition of key trading desks from spreadsheets to a robust price curve marking application, resulting in increased efficiency and data accuracy
- Developed visualizations and reporting for real-time data tracking through downstream systems, increasing transparency in service of continuous improvement of the curve marking application
- Created secure code for same-day curve initialization, allowing synchronous downstream system use and eliminating the need for overnight processing
- Mentored junior team members in best practices for modern software engineering, fostering a collaborative and innovative team culture
- **Tools:** Python (Quartz), React/Redux, AMPS Messaging, BofA NoSQL DB, ITRS, Bitbucket, Jenkins

### Software Engineer II

Bank of America – Houston, TX

10/2019 – 01/2022

- Produced architecture and design artifacts necessary to retire a legacy application, coordinating with cross-functional teams to ensure design constraints were met by the software code development
- Enhanced middle-office reconciliation applications, reducing data entry time from weeks to minutes and improving operational efficiency
- Identified hidden problems and patterns in data causing recurring erroneous alerts in an Exchange limit monitoring application, driving improvements to system architecture which restored system reliability and user trust
- Developed an ETL feed mapping Exchange accounts to trader books, enabling accurate position tracking and compliance with regulatory limits
- **Tools:** ASP.NET/C#, MSSQL, Python (Quartz), BofA NoSQL DB, Bitbucket, Jenkins, Ansible

### Senior Software Consultant

Credera – Houston, TX

05/2019 – 10/2019

- Collaborated with clients to solve their biggest technological challenges and contributed to a culture of continuous learning and improvement
- Supported a large-scale Microsoft Dynamics CRM installation and surrounding custom applications, ensuring system stability and performance

- Contributed to a DevOps community of practice and led events exploring new and emerging technologies, concepts, best practices and enhancing team skills in CI/CD processes for junior members
- **Tools:** PowerShell, MSSQL, Jenkins, Octopus Deploy, New Relic, PRTG

### Senior Software Operations Engineer

Quorum Business Solutions Inc. – Houston, TX

03/2018 – 05/2019

- Managed operational processes to decrease development life cycle timelines under an agile software development methodology
- Developed tools, built scripts, and created documentation used for client-side web server and .NET framework based software installations
- Automated Azure DevOps release pipeline creation for deployment of software applications, increasing process efficiency by 90%
- Migrated n-tier application environments to Azure Cloud, allowing the business to evaluate cost and time savings
- Developed a web application to automate server information management, significantly improving software deployment processes
- **Tools:** PowerShell, .NET/C#, RabbitMQ, Oracle, MSSQL, Azure DevOps Services, Chef, Ansible, Azure, TeamCity

### Senior DevOps Engineer

Quorum Business Solutions Inc. – Houston, TX

01/2017 – 02/2018

- Automated and standardized internal software deployment processes, reducing completion times from days to minutes
- Supported and enhanced internal processes, minimizing manual errors and improving process reliability
- Designed and implemented a standardized SQL script template for managing database settings, streamlining database administration across environments and data refreshes
- Deployed and debugged application and database installations in clients' non-Production and Production environments
- **Tools:** PowerShell, .NET/C#, Oracle, MSSQL, Azure DevOps Services, TeamCity

### Senior Software Implementation Consultant

Quorum Business Solutions Inc. – Houston, TX

04/2014 – 12/2016

- Implemented Quorum Land Suite software upgrade for major clients, leading small teams across multiple successful project completions
- Managed business and IT expectations throughout the project lifecycle from internal development through transition to long-term maintenance
- Developed an Oracle database package to streamline legacy data migration, reducing upgrade timelines from months to weeks
- **Tools:** Oracle, .NET/C#

### Software Implementation Consultant

PowerPlan Inc. – Atlanta, GA

06/2012 – 03/2014

- Implemented PowerTax software for major corporate clients, providing expertise in utility tax accounting and Oracle SQL scripting
- Coordinated script migrations and database management with clients' IT
- **Tools:** Oracle SQL

## PROJECTS & INTERESTS

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### Feldspar

- Microservice-based market data visualizer with websocket architecture ([my repo](#) / [Azure site](#))
- **Technologies:** docker, Node.js, ReactJS, C#, Java, nginx, Redis pub/sub and caching
- Deployed as a multi-container **Azure App Service** with **Docker Compose**

### MediatR vs Discriminated Unions

- A comparison of the C# MediatR library with F# Discriminated Unions ([my repo](#) / my write-up: [mediatr-vs-discriminated-unions](#))
- **Technologies:** .NET, MediatR

### RsTodo

- A command line task tracking and reporting tool with file and SQLite persistence ([my repo](#))
- **Technologies:** Rust, SQLite

### Advent of Code solutions

- Solutions to select Advent of Code (cf. [adventofcode.com](#)) puzzles ([my repo](#))
- **Technologies:** .NET, Python

### Ticket management sites

- Websites inspired by Jira using different technology stacks
- **TicketPusher:** C#, Blazor, .NET Core Web API, EF Core, Azure SQL Database, Docker, Okta
  - Deployed as a multi-container **Azure App Service** with **Docker Compose**
  - Utilizes **GitHub Actions** to push containers to **Azure Container Registry (ACR)**
- **pytickets:** Python, Flask, Bootstrap, PostgreSQL, Okta, Heroku
- **gotickets:** Go, MongoDB, HTML

## EDUCATION

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Bachelor of Arts in Mathematics, Minor in Computational and Applied Math

Rice University – Houston, Texas

08/2008 – 05/2012

- GPA: 3.8, Cum Laude
- Publication: [Energy-minimizing unit vector fields](#)
- [National Hispanic Merit Scholar](#)

Prior experience references available upon request.