



## About

James is a software architect and senior developer in Charleston, SC. He has eighteen years of experience designing, building, and supporting an automated service delivery and cloud provisioning system for hundreds of microservice deployments in Azure and, before that, an enterprise-scale CRM and transaction system on a .NET and Microsoft SQL Server tech stack

He is interested in building new products on up-and-coming technologies, modernizing older systems to take advantage of recent advances, exploring the future of cloud deployments, and solving interesting problems alongside a passionate team

## Key Skills

- **DEVOPS** — Kubernetes, Istio, Docker, Azure PaaS, Azure DevOps Pipelines, PowerShell & bash
- **.NET** — C#, F#, ASP.Net Core WebAPI, distributed and parallel programming
- **WEB** — Typescript & JavaScript
- **DATABASES** — SQL Server, Azure CosmosDB, performance design, query optimization

## Work History

### Blackbaud, Inc.

*Platform Engineering Team Architect, Laureate Software Engineer*  
June 2005 — Present

#### CURRENT ROLE

Technical lead and architect of the Platform Engineering team charged with enabling and empowering other dev teams to quickly and efficiently leverage Azure's PaaS deployment options

Currently designing and implementing a PCI DSS-Compliant IaC-based compute platform for continuously deployed microservices, centered around Kubernetes

Currently leading an effort to migrate existing microservice-based deployment automation to a new IaC model based on Pulumi

Designed and implemented a DDoS protection solution for Kubernetes deployments in Azure

Assisted with the design and led the implementation of a transition from company-wide Azure App Service deployments to Kubernetes-based deployments using Azure AKS

On-call and subject matter expert for Kubernetes implementation and operational issues

Architectural consultant and subject matter expert for any team wanting to go forward with new Azure technologies

## PREVIOUS ROLE

Technical lead on the team charged with building and maintaining the framework and platform for an enterprise CRM solution

Maintained a powerful ad-hoc query engine, implementing multiple performance improvements and feature enhancements along the way

Added dozens of features and resolved hundreds of bugs in legacy areas of the system

Modernized legacy subsystems by adopting new authentication methods and new .NET async patterns

## Side Projects

A subject-centered microblogging platform and personal website written in F# using a Mongo datastore, deployed via Docker

This resume, also written in F# as a specific page of the above personal website

A suite of Docker containers (and orchestration scripts) hosting multiple websites behind a Traefik frontend, deployed automatically via GitHub action pipelines

Other projects include:

- a Windows UWP C# app for managing a karaoke library and playing CD+G files
- a Ruby and Sinatra web app for managing a book club
- an Objective-C and Cocoa macOS app for generating secure & memorable passwords
- a PHP webapp for displaying photographs
- Miscellaneous scripts and utilities as needed in bash, PowerShell, TypeScript, C#, F#, C++, etc.

## Education

### Clemson University

*August 2001 — May 2005*

- BS in Computer Science, *Cum Laude*
- Minor in Mathematics

## Contact

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*A current and annotated version of this resume is available at <https://jameswilliams.me/resume>*