

# NATE GRIGG

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Nate has an intuitive creativity that is hard to come by in engineers. Combine this creativity with an uncanny knack for abstraction and you get ingenious technical solutions. Mix in Nate's natural aversion to inefficiency and you end up with truly elegant designs.

## EXPERT SKILLS

Nate has expert skills in **DESIGN** and **IMPLEMENTATION** of **WEB SERVICES**.

Both **MICROSERVICES** and other **REST WEB SERVICES**

Implemented in **JAVA (SPRING)**, **DJANGO**, **FLASK**, and **.NET**

But his real passions are in the areas of: **MOBILE STRATEGY**, and **SOFTWARE DESIGN** and **ARCHITECTURE**

## PROFICIENT SKILLS

While he wouldn't claim to be an expert, Nate is proficient in **PYTHON**, **JAX-RS**, **ASP.NET MVC**, **.NET CORE**, **MAVEN**, **NUGET**, **PIP**, **SCRUM**, **LEAN DEVELOPMENT**, and **OXFORD COMMAS**

## MOBILE PROJECTS

### MAGiE: MAGnetic Interactive Explorer

Nov 2018–Present (When free-time allows)

Nate released a mobile game, built using the **UNITY** game engine with **C#** scripting. He has built a small library for the underlying bit manipulation and used **NUGET** to manage that dependency in the **UNITY** project. Working on his Mac, he has learned about **DOTNET CORE** and he has been learning the **JETBRAINS RIDER** IDE to make his life easier.

While managing beta tests and releases, Nate earned a new respect for continuous delivery and release management!

The game is called MAGiE, short for MAGnetic Interactive Explorer. The premise is that you have this device that reads binary data from a mag-stripe like on a credit card. The game then presents you with puzzles where you have to decode the bits to read a message, or encode bits to answer a puzzle.

It's lots of fun, you should try it!

<https://magiegame.com/magie/>

## REST endpoint to provide mobile app with content from Sitecore Content Management System

2014

While working to convert the main website from **SHAREPOINT 2010** to the **SITECORE CONTENT MANAGEMENT SYSTEM (CMS)**, a new feature was being developed in the company's native mobile apps. Nate quickly exposed content from the **CMS** as **JSON** output so the mobile developers could deliver their feature on time.

## Mobile Web Application for booking flights

2010–2012

Nate built a prototype **MOBILE WEB APPLICATION** for making airline reservations using Navitaire's **NEW SKIES** reservation system. One of Navitaire's major European customers needed a mobile booking flow *yesterday*. Nate proposed polishing the prototype web app and the customer agreed.

Nate led a revolving team of developers to polish the web app for production use at a major airline. As the project was ramping up, the CEO of the Airline insisted that the mobile booking flow be accessible from **ANDROID** and **IOS apps** in the app stores.

As development continued on the mobile web app, Nate and the others worked with developers at the airline who built native apps with web controls to wrap the mobile web app.

## US Patent 8942991B2: Agent-side traveler application for mobile computing devices

Application Filed May 2011

This patent illustrates Nate's ability to reduce complexity. Here, the steps of finding a bus route, selecting a destination, booking a ticket, and collecting payment are reduced to a single swipe of a credit card.

## Mobile Game in the Windows Phone marketplace

2011

Nate and a friend developed and released a puzzle game to the **WINDOWS PHONE**

marketplace. Nate found many exciting technical challenges including programming animations and subtle interactions in the **WINDOWS PHONE** flavor of **SILVERLIGHT**.

Releasing the **MINIMUM VIABLE PRODUCT** taught Nate and his friend a lot about **PROJECT MANAGEMENT** and **PRIORITIZATION**. While they hoped for greater success for the game, the lessons learned were well worth the effort.

## SOFTWARE ENGINEERING WORK HISTORY

### Senior Software Engineer, ReliaQuest

August 2021–March 2022

**JAVA** microservices built with **SPRING BOOT**, **SPRING MVC**, and **POSTGRESQL** (deployed to **AWS**).

Nate was the “Squad Lead” for a full-stack team of front-end and back-end developers. The project was to port an internal, employee-facing application to be part of ReliaQuest’s main application, “GreyMatter”.

Nate and the team worked with ReliaQuest’s Data Engineering team to set up jobs to transfer the data from the active internal app into a **POSTGRESQL** database where their micro-service would serve it to the front end. The front-end developers on the team built components to display the information to the users of the GreyMatter web app.

### Principal Software Engineer, Newfold Digital

A.K.A. Bluehost

Dec 2019–Aug 2021

**PYTHON**, **DJANGO**, **FLASK**, **MICROSERVICES**, **JSON WEB TOKENS (JWT)** Nate was a Tech Lead on a team with 4 fellow developers as they built a **DJANGO** microservice from scratch and inherited two **FLASK** microservices.

#### Content Recommendation System

**REST MICROSERVICE** in **DJANGO** to recommend helpful links (such as knowledge-base articles) to customers at various page locations in Bluehost’s web apps.

The service was so helpful and easy to use that the marketing team decided to use it to show **BLACK-FRIDAY OFFERS** to existing customers.

#### Website Builder Authorization Service

**FLASK** microservice that signed **JSON WEB TOKENS (JWT)** to authorize users of Bluehost’s new Website Builder for WordPress sites.

#### Website Builder API Gateway

**FLASK** microservice to front calls to Bluehost’s monolithic Hosting Platform.

## Developer, Personal Project

Nov 2018–

See [MAGiE](#) above

## Senior Software Engineer, Ancestry, Inc.

2015–2018

Monolith BreakUp and conversion to Micro Services

Commerce department at Ancestry

Nate worked on replacing a suite of monolithic **.NET** services with Java **MINI**services. Aiming to build **MICRO**services, the team ended up building services that were a little larger than intended. So, while breaking up the **MONOLITH**, the team also worked on breaking the **MINI**services into **MICRO**services. The team also spent the last year “lifting and shifting” all of these services (**MICRO**, **MINI**, and **MONOLITHIC**) to the **AWS** cloud.

All this while implementing new features and helping the team raise their standards for software excellence.

Java 8, JAX-RS, REST, Micro-Services, Spring Dependency Injection, Maven

## Senior Software Engineer, Intermountain Healthcare

2014–2015

Non-Profit Healthcare Provider

Nate worked with the web team implementing the company’s main user-facing web site.

Sitecore Content Management System (CMS)

## Senior Software Engineer, RedBell Real Estate

2013–2014

Real-Estate Services company

ASP.NET Web Forms

## Senior Consultant, Application Development, Avanade Inc.

2006–2013

IT Consulting joint venture from Accenture and Microsoft

Most of Nate’s time with Avanade was spent in Professional Services at Navitaire, an airline reservations company. Navitaire Professional Services assists airlines with implementation and customization of Navitaire’s reservations platform. Nate mostly worked with airline web developers customizing various aspects of their booking flow.

## Software Developer in Test, Control4

**2004–2006**

Home-automation startup

Testing hardware and software at a home-automation startup.

**Embedded Linux, C, C++, Custom Test Automation Software in C#**

**Software Engineer, ThoughtLab**

**2002–2004**

Custom web applications

ASP.NET 1.0, 1.1

## **EDUCATION**

**Bachelor of Science, Computer Science**

**University of Utah**

**2002–2006**

**work in progress... more to come.**