# **Aidan Fahey**

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## **Work Experience**

Web Surfing Studios - Junior Software Engineer (Remote)

May 2025 - Present

- WSSEmailCatcher API & React App
  - Lead and sole developer for a C# / .NET REST API and React App used to manage Web Surfing Studios email database.
  - Created endpoints to allow users to **list and query for all emails** sent by WSSEmailSender and **delete unwanted entries**.
  - Designed a dynamic and user friendly interface using React and Redux to access API endpoints
- Accelerated email tracking by 500% via React interface, eliminating the need for raw SQL queries.
- Utilized Entity Framework & migrations to manage remote AWS RDS MySQL instances.
- Constructed CI & CD Azure DevOps pipelines which connected Git to AWS Elastic Beanstalk applications through Dev. Test. and Prod environments.
- WSSEmailSender API
  - Shipped **12 features to production** deployment.
  - Developed a C# / .NET REST API to centralize and manage all email communications across Web Surfing Studios' web applications, reducing redundancy and vastly improving security of AWS keys and secrets.
  - · Utilized API Gateway, AWS Lambda (serverless) apps, AWS SQS, AWS RDS, AWS SES, and an AWS Beanstalk instance to provide horizontally scaled processing.
  - Removed 400 lines of code used for specific emails by creating a general purpose email service.
  - Implemented a partial batch response and global exception handler to **pass successful messages and retain failed** messages in the queue.
  - Created MySQL database and C# library utilizing Entity Framework for storing/updating email data as they are processed.
- Automated testing functionality using NUnit. Developed unit tests and utilized Moq to handle integration testing against core injected dependencies.
- Web Surfing Studios Candidate Portal (<a href="https://apply.websurfingstudios.com">https://apply.websurfingstudios.com</a>)
  - Shipped 5 features to production deployment.
  - Created a reusable C# .NET email template for candidate rejections, integrated into an existing background service and processed via AWS Simple Email Service, and built a front-end workflow to trigger rejections, **significantly improving** applicant review efficiency and enabling automated delivery of up to 400 emails per month in 5 minutes.
  - Implemented dynamic filtering for an internal candidate portal using AJAX and jQuery, integrating with a C# .NET Framework background to persist filter states and **enhance user experience and efficiency**.
- Implemented dynamic warning labels for an internal application view using Razor to highlight non-default application answers, **improving data visibility**.
- Utilized latest industry standards of feature flagging all code in production with AWS AppConfig and logging all data to New Relic for debugging.

#### Education

College of the Holy Cross (Worcester, MA)

September 2021 - May 2025

- B.A. Computer Science & Religious Studies | Dean's List
  - Coursework: Databases, Data Mining, Theory of Computation

#### **Skills**

- Languages: C# / .NET (Main), HTML/CSS, TypeScript, JavaScript, Python, C/C++, Java, Swift, PowerShell, YAML
- Frameworks: .NET, ASP.NET Core, ASP.NET MVC, Windows Forms (C#), Bootstrap, FastAPI, Express
- Libraries: React, React Native (Expo), Redux, jQuery, NumPy, Pandas, Scikit-learn, Matplotlib, MapKit, CoreLocation
- Version Control Systems: Git, GitHub, GitLab, Gitea
- Databases: Microsoft SQL, MySQL, PostgreSQL
- Agile Methodology & Azure DevOps
- CI/CD: DevOps Build & Release Pipelines, GitHub Workflows
- Misc: Node.js, Entity Framework, Windows Installers, Windows Server & IIS, Docker, Prisma
- AWS: Elastic Beanstalk, Lightsail, AppConfig, Secrets Manager, SQS, SES, RDS, Lambda, S3, CloudWatch
- Spoken Language: English (Native)

## **Projects**

Cnectd (https://github.com/afahey03/Cnectd)

• Created a full-stack React Native chat application built with Expo and a Node.js/Express backend. It allows users to register with a unique username, manage friends, and chat via direct messages or groups. DB done with Postgres, Docker, and Prisma.

## Mabel (https://github.com/afahev03/Mabel)

• Designed object oriented programming language named after my Chow Chow, complete with a parser, lexer, compiler, and virtual machine written in Java to allow users to write and compile programs. Support for inheritance, recursion, etc.

#### **WSS Hackathon Help Bot**

• Engineered an AI powered Help Bot using Node.js, C# / .NET, and AWS Lambda during a company-wide hackathon to allow users to ask commonly asked programming related questions on the WSS SSO site.