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, Stage, and Prod environment**s.
- WSSEmailSender API & Lambda
  - 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 now redundant 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 (https://apply.websurfingstudios.com)
  - 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/afahey03/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.