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 the API endpoints.
 - Utilized Entity Framework & migrations to manage remote AWS RDS MySOL 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 by providing a reusable service.
- Utilized API Gateway, AWS Lambda (serverless) apps, AWS SQS, AWS RDS, AWS SES, and an AWS Beanstalk instance to provide horizontally scaled processing.
- · 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.
- Diagnosed overridden status code issue and altered API post method to return proper status code.
- 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**.
- · 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**.
- Located and fixed login errors caused by database, navbar, and secrets issues, allowing users to register and log in.
- 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.