Aidan Fahey

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Work Experience

Web Surfing Studios - Junior Software Engineer *(Remote)*   *May 2025 - Present*

- WSS Email Catcher API & React App
  - **Led end to end development** of C# / .NET REST API and React App 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** environments, **increasing deployment speed by 90%**.
- WSS Email Service 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 1600 lines of legacy 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, **improving tracking efficiency by 150%**.
  - 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 (apply.websurfingstudios.com)
  - Shipped **6 features to production** deployment.
  - **Rewrote 100% of legacy frontend code in React**, and **migrated 100% of legacy backend into .NET Core Web API**.
  - Created a reusable C# / .NET email template for candidate 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 **enhancing filtering by 70%**.
  - Implemented dynamic warning labels for an internal application view using Razor to highlight non-default application answers, **improving visual tracking by 100%**.
  - Utilized latest industry standards of feature flagging all code in production with AWS AppConfig and logging all data to New Relic, **reducing debugging time by 200%**.

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

Projects

Gear Crossroads (gearcrossroads.com) (linkedin.com/company/gear-crossroads)

- Engineered a full-stack web application allowing users to create and share setups of various domains, such as gaming, photography, etc. Built with a C# / .NET backend, a Vue.js and Tailwind CSS frontend, Axios, Pinia, and AWS RDS MySQL.

Cnectd (github.com/afahey03/Cnectd)

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

Mabel (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.

Skills

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