James McCarthy

Software Engineer

About

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Backend

Advanced

TypeScript Node.JS

ExpressJS

RESTful Architecture

Multi-layer Architecture

Microservices Architecture

Databases

Advanced

PostgreSQL MS SQL

MongoDB CosmosDB

ORM ERD Modeling

Frontend

Intermediate

TypeScript React

React Hooks Redux

HTML5 JSX SCSS/CSS3

Infrastructure

Intermediate

Azure Azure Pipelines

Azure DevOps

Azure Event Grid

Azure Blob Storage

Azure Storage Queues

Azure Functions

Serverless Terraform

Docker

Summary

An innovative Software Developer with seven years of expertise in web-based technologies, showcasing strong leadership and communication skills. Proficient in agile methodologies and well-versed in the entire software product lifecycle. Committed to delivering high-quality software through the implementation of behavior-driven development and the application of SOLID principles to guide design patterns.

Experience

Brkfst.io
Lead Backend Developer

01/2020 - Present

- Lead Backend Developer of one of the top UGC content generation platforms: BRKFST allows brands to source the most performant media assets to be used for advertising on paid and organic channels. As Lead Developer, I helped build and lead the software department that was spun-off from WITHIN. I was responsible for the architecture, development, and maintenance of the services that power the BRKFST platform.
- Implemented Terraform Infrastructure as Code, Terraform Cloud, and Azure Pipelines YML files across all projects to scale and deploy Azure services efficiently. Enhanced developer experience by offering transparency into the operational infrastructure and established version control for seamless service updates.
- Led the creation and development of Azure Function Apps to manage asynchronous backend processes, effectively reducing system complexity. This initiative enabled continuous deployment and achieved a 50% reduction in the time required to deliver features.
- Implemented Docker integration into Azure Pipelines to efficiently build and deploy containers to Azure Container Registry, facilitating seamless deployment to Function Apps. This initiative resulted in a highly configurable Azure Function environment, significantly reducing the time required for deploying changes.
- Implemented the application's media processing system by adopting a microservices architecture through Azure Functions written in TypeScript. Leveraged Azure Blob Storage and the Event Grid to efficiently initiate system processes upon file uploads. Additionally, seamlessly integrated SignalR to broadcast real-time outputs to connected clients via WebSocket.
- Developed scalable Node.js web services in TypeScript using Express to efficiently manage a high volume of concurrent requests from client applications. Implemented robust security measures by incorporating JWT authorization to safeguard the web services.
- Deployed a client-side application built with React using TypeScript(TSX) to create a highly interactive and performant user interface.
- Implemented behavior-driven development by rigorously conducting unit, integration, and end-to-end testing to align with acceptance criteria outlined in user stories. Significantly minimized the number of bugs generated in each sprint, contributing to a substantial reduction in overall technical debt.
- Led a developer team using a hybrid Agile methodology combining Scrum and Kanban to meticulously plan, design, configure, and test web services, ensuring seamless integration with Continuous Integration/Continuous Deployment (CI/CD) practices.
- Optimized the Scrum workflow by orchestrating daily stand-ups, sprint planning, sprint retrospective sessions, utilizing Kanban storyboards, proactively addressing blockers, and formulating actionable items for streamlined release deliverables.
- Conducted comprehensive code reviews for the team, upholding best practices in Object-Oriented design through the implementation of SOLID principles. This initiative resulted in a notable increase in the defect detection rate, surpassing the levels achieved through unit and integration testing by 20-30%.

WITHIN
Full Stack Developer

07/2018 - Present

- Managed and enhanced backend legacy codebase developed in Ruby with Ruby on Rails, automating daily workflows for the digital marketing team.
- Developed client-facing dashboards and tools using React to track brand metrics across various advertising platforms, including Facebook Advertising,

Project

Intermediate

Git Flow

Agile-development

SOLID Design Principles

OAS (Swagger)

Behavior-Driven Development

Domain Knowledge

Intermediate

Digital Marketing

Facebook Marketing

Google Ads

Google Tag Manager

Google Ads, Google Analytics, Search Ads 360, Display & Video 360, Snapchat Ads, and Amazon Advertising.

- Engineered an ad-pruning tool for Facebook Ads Manager by leveraging the Facebook Marketing API. The tool systematically removes underperforming ads from an ad set based on user-provided filters. Implemented a user-friendly React front-end form using Formik to enhance the handling of user input.
- Implemented Google Tag Manager to empower brands in effortlessly establishing tracking tags, triggers, and variables across diverse platforms.

Open Source Projects

tiktok-api-bkrfst · https://www.npmjs.com/package/tiktok-api-brkfst
NodeJS Wrapper for the TikTok Marketing API

TypeScript   Node.js   Azure Pipelines

- Lightweight API built for ease-of-use.
- Succinct TypeScript definitions provided.

Gif Collage · https://client-gifcollage-prod.azurewebsites.net/
Serverless Node.JS web app that creates a Gif-Collage using user-provided uploads.

Azure Functions   React   Serverless   TypeScript   Node.js   Terraform   SignalR   Event Grid   CosmosDB   WebSockets

- Uses the Azure Event Grid to trigger Azure Function upon file upload.
- Integrates CosmosDB NoSQL storage for saving Blob Storage URLs and file metadata.
- Utilizes WebSockets protocol via SignalR to stream newly uploaded files to the Collage for connected users in realtime.
- Backend Github: https://github.com/jmccarthy92/collage-backend
- Frontend Github: https://github.com/jmccarthy92/collage-client

Education

SUNY Old Westbury   *09/2015 - 07/2018*
Bachelor of Science in Computer Science
3.91

Awards

Summa Cum Laude
SUNY Old Westbury