Meenakshi Kathiresan

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SUMMARY

Software Engineer with 4+ years of programming experience transitioned from game development industry, proficient in C#, Python, and JavaScript with a strong foundation in Data Structures, Algorithms and Object-Oriented Programming.

SKILLS

Programming Languages: C#, Python, JavaScript, TypeScript
Web technologies: ASP.NET Core MVC, jQuery, AJAX, React, Node, Django, CSS, HTML, RESTful API
Database: SQL Server, MongoDB
Cloud technologies: AWS, Docker, Firebase
Others - git, Unity 3D game engine, agile, Adobe XD

EXPERIENCE

Software Engineer - Cummings Properties, Massachusetts   **Dec 2023 - Present**
  - Developed a highly configurable reporting system using ASP.NET Core MVC and SQL Server, initially for accounts receivable but designed for easy reuse across other modules. Created a presets module to save user configurations as global or personal presets, significantly speeding up report generation.
  - Identified a critical issue in the existing third-party utility billing system for heatpump usage, leading to revenue loss. Built a new system to process weekly CSV dumps, handle errors, and apply rules to generate accurate invoices for each lease, significantly increasing revenue (by 3x) by capturing previously missed charges.
  - Created a comprehensive in-house library application using ASP.NET Core MVC, enabling seamless calendar management, recurring events, and meeting room bookings. Implemented key modules for authentication (Windows and Identity), role management, calendar, event scheduling, link sharing, and advanced search functionality.

Software Engineer - Lightpong, Chicago   **June 2023 - Dec 2023**
  - Developed and optimized backend functions for the companion app, building 4 TypeScript Lambda functions with API Gateway triggers. Implemented authentication via Auth0 and enhanced efficiency by optimizing existing functions, transitioning from scan to a global secondary index in DynamoDB, resulting in a 2x speed improvement.
  - Built 6 game prototypes for 1D gaming console on the firmware (made with ESP32) using Python, which accounts for 40% of all the games in production for product launch.
  - Implemented a file sync feature in the lightpong CLI tool using Python pathlib, which effectively identifies changed files recursively and selectively replaces them, reducing the file transfer speed by 90%, from 40 seconds to below 5 seconds.

Game Developer - Hammerplay Studios, India   **Jan 2019 - Dec 2021**
  - Produced and presented over 5 successful prototypes, securing client approval for subsequent large-scale projects. Exceptional proficiency in crafting compelling proof of concepts that resonate with clients.
  - Built a game called Sling racer, a hyper casual single-player web game with JavaScript in Phaser game engine with P2 physics and procedural generation that was released in MX Player with over 100,000 plays.
  - Implemented a 3D tower defense mobile game in C# using AI agents, collision system, DG tweening and object pooling. Integrated 3D models, animation, and UI to deliver a complete end to end game.
  - Created interactive educational games using the developed tool for Byju's in collaboration with Disney, with a focus on developing reusable, child-friendly multiple-choice question (MCQ) and classification games.
  - Collaborated to develop a node-based editor tool in agile management for Byju's Early Learn app in Unity with C# in a 3-member team that made the building pipeline faster by 80% compared to the previously used tool.
  - Integrated backend of a multiplayer game that updated all statistics using Microsoft Azure's PlayFab for a car racing game made with C# in Unity 3D.

Projects

Game projects to explore and source code (C#): Juicy Trip (Play), Loop it (Play) , Dock Dilemma (Play).
Full stack projects: Questionner (MERN), Vaccine Tracking (MERN), e-commerce (Django and Vanilla JS)

EDUCATION

University of New Hampshire   **Aug 2023**
Masters of Science in Information Technology (GPA - 3.99/4)
Student Marshal of the IT department for the academic year