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Senior Full-Stack Developer / Frontend Developer / Backend Developer / Game Developer

Education:

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| • Northeastern University, Portland, ME: Master of Science in Computer Science | January 2024 - May 2026 |
| • Suffolk University, Boston, MA: Bachelor of Science in Computer Science | September 2021 - May 2023 |
| • INTI International College Subang, Malaysia: Bachelor of Science in Computer Science | September 2019 - July 2021 |
| • TUIT, Uzbekistan: Bachelor of Science in Software Engineering | September 2017 - June 2019 |

Technical Skills:

- **Programming Languages:** C#, Java, Python, JavaScript, TypeScript, PHP
- **Backend:** ASP.NET Core, Nodejs, Bun, Spring Boot, NestJS, FastAPI, Laravel
- **Frontend:** Angular, React, Next.js Blazor, HTML, CSS
- **Mobile:** MAUI, React Native
- **Databases:** MS SQL, PostgreSQL, MySQL, MongoDB, Redis, Firebase, DynamoDB
- **Version Controls:** Git, GitHub, Azure DevOps | **Project Management Tools:** JIRA, Trello, Asana
- **AI Tools:** Python Keras, OpenCV, PyTorch, Yolo, Deep Learning
- **Frameworks:** .NET, JDK, Colyseus, Entity Framework, WPF, SignalR, Socket.IO, Prisma, TypeORM
- **Game Engines:** Unity, Godot, PhaserJS
- **Infrastructure:** AWS, Azure, Docker, Kubernetes, AWS Serverless | **Message Queue:** RabbitMQ, MassTransit
- **Concepts:** Microservices, Distributed and Multi-Tier Systems, Data Structures and Algorithms, Design Patterns, TDD, OOP, MVVM, SOLID, DRY
- **Soft Skills:** Leadership, Teamwork, Attention to Detail, Versatility, Problem-Solving, Creativity

Work Experience

Freelance Full Stack Developer | Upwork | USA

July 2022 – Present

- Collaborated with various clients across diverse industries, including healthcare, real estate and gaming, to develop robust software solutions.
- Developed "Chestnut", a large-scale MMO game using a client-server architecture. Focused on enhancing player interactions, real-time synchronization, and integration web3, demonstrating strong leadership and team collaboration. Built a server-side game physics engine and established real-time synchronization for uninterrupted user engagement.
- Designed and developed a healthcare application that scans medical images using AI models to detect diseases. Deployed the app using Azure Kubernetes Service (AKS).
- Developed a Blazor-based form builder and renderer library, allowing users to create forms with drag-and-drop features, generating JSON output. Integrated Radzen components for form customization.
- Developed a full-stack real estate web application using Next.js and NestJS, streamlining communication and transactions between buyers, agents, and sellers.
- **Tools Used:** C#, TypeScript, Python, React, Nextjs, Angular, PhaserJS, NestJS, FastAPI, PostgreSQL, Redis, Docker, Kubernetes, Azure

Full Stack Developer | EmTech Care Labs | Portland, ME | USA

January 2025 – June 2025

- Built a HIPAA-compliant healthcare platform that enables family caregivers to collaboratively plan and manage complex home care for older adults living with Alzheimer's disease and other memory disorders.
- Refactored and unified the frontend and backend codebases by integrating TypeScript, significantly enhancing code quality, scalability, and maintainability.
- Led the migration from AWS Amplify Gen 1 to Gen 2, reducing build and deployment times while modernizing the backend for long-term support.
- Standardized the UI by consolidating multiple libraries into a single component library, resulting in consistent user experience and simplified maintenance.
- Implemented real-time messaging and notification systems with Amplify Gen 2 backend.
- Integrated mono repository approach by streamlining backend, frontend apps (web and mobile), and libraries into a single, manageable repository, increasing maintainability.
- Resolved critical bugs and optimized performance, improving overall application stability and responsiveness.
- Added enhanced documentation and API references.
- **Tools Used:** TypeScript, React, Vite, AWS Amplify, S3, API Gateway, DynamoDB, Cognito

.NET Software Engineer | Virtuworks | Miami, FL | USA**December 2022 – December 2023**

- Led the successful migration of the legacy ASP.NET Web Forms system to the cutting-edge Blazor WebAssembly framework, resulting in improved application performance and enhanced ease of maintenance.
- Developed highly efficient and responsive UI components using Blazor, contributing to enhanced user experience.
- Spearheaded the refactoring of server applications, optimizing their performance and streamlining operations, demonstrating problem-solving and innovation.
- **Tools Used:** C#, ASP.NET Core, ASP.NET Web Forms, Blazor, MS SQL, Docker, Kubernetes, Azure DevOps

.NET Software Engineer | Frost Pixel Studio | Russia**October 2021 – May 2022**

- Developed web applications and browser-based games using ASP.NET Core, Blazor, Angular, and PhaserJS.
- Enhanced web application performance by 30% using efficient caching strategies.
- Designed and created a knowledge management platform using technologies like Node.js, TypeScript, Dgraph, React, and Mobx.
- **Tools Used:** C#, TypeScript, Python, ASP.NET Core, Angular, Blazor, MAUI, MS SQL, Docker, Azure DevOps, PhaserJS.

.NET Software Engineer | Smart Meal Service | Russia**September 2020 – October 2021**

- Contributed to all phases of SDLC for multiple application development projects, demonstrating collaboration and multitasking.
- Developed a robotic cashier application and a self-service kiosk integrated with POS systems.
- Worked closely with the app development team to determine problems, testing methods, and best practices.
- **Tools Used:** C#, JavaScript, ASP.NET Core, WPF, RabbitMQ, MS SQL, gRPC, Azure DevOps, MVVM, Prism

Game Developer | Pentalight Technology | Malaysia**March 2020 – February 2021**

- Developed multiplayer functionality for a smart city project on the Unity platform.
- Integrated UI and HUDs for VR platform using MLAPI and SteamVR.
- Participated in design & code reviews, providing valuable feedback & suggestions that improved overall game quality & UX through collaboration and communication.
- **Tools Used:** C#, ASP.NET Core, Unity, SteamVR, Photon, MLAPI

Freelance Software Developer | Freelancer.com**February 2019 – February 2020**

- Developed web, desktop, and mobile applications using the .NET stack.
- Developed APIs and natural language processing applications using Python NLP libraries.
- Oversaw troubleshooting of technical issues to solve problems quickly and efficiently using various resources.
- **Tools Used:** C#, JavaScript, Python, ASP.NET Core, ReactJS, Xamarin.Forms, Unity 3D, WPF, MS SQL, MongoDB

Game Developer | EC Dev Team | Uzbekistan**July 2016 – January 2019**

- Led the development of the RTS game "Hearts of Iron: Economic Crisis" in Clausewitz Engine.
- Developed game AI logic, hardcore game mechanics, and software tools for developers.
- Reviewed game system within areas of responsibilities and ensured balancing across the game for player experience and goals.
- **Tools Used:** Lua, C#, Python, WPF, MVVM, Azure DevOps

Personal Projects

Logistics TMS

- A cutting-edge, enterprise-scale, large-scale SaaS application for transportation companies. Logistics TMS is a fleet management system primarily targeting logistics and trucking companies seeking to streamline their operations. It offers a comprehensive suite that includes an administrator web application, a management web application, and a driver mobile application. The backend is powered by a robust REST API and an Identity Server application. Operating on a multi-tenant architecture, Logistics TMS features a master database for storing user credentials and tenant data, including company name, subdomain name, database connection string, and billing periods. Each tenant or company has a dedicated database.
- **Stack:** C#, TypeScript, ASP.NET Core, Entity Framework Core, SignalR, PostgreSQL, Angular, Blazor, MAUI, Identity Server, Firebase, Docker, Multi-Tenant, CQRS, Domain-Driven Design
- **Repository:** <https://github.com/suxrobgm/logistics-app>

Med Image Scanner

- HIPAA-compliant healthcare platform that connects to hospital PACS servers via the DICOM standard, enabling radiologists and clinicians to securely view, annotate, and run AI-powered analyses on X-ray, CT, and MRI studies. Provides in-browser tools for window/level adjustment, distance and angle measurements, segmentation masks, and disease-detection overlays generated by PyTorch and OpenCV models. Architected with a Python FastAPI backend and a Next.js frontend, leveraging OHIF Viewer for image rendering and MUI / Tailwind for a responsive UI. Follows a Domain-Driven Design approach with PostgreSQL as the data store.
- **Stack:** Python, TypeScript, FastAPI, Next.js, React, PyTorch, OpenCV, LLM, OHIF Viewer, MUI, Tailwind, PostgreSQL, Domain-Driven Design
- **Repository:** <https://github.com/suxrobgm/med-image-scanner>

Blazor Form Builder

- Blazor Form Builder is a comprehensive library for generating and managing forms within Blazor applications. It provides a simple interface for creating forms with various field types, including text, numeric, date, and dropdown fields. The library includes a Blazor WebAssembly application for designing and rendering forms from a JSON schema.
- **Stack:** C#, Blazor, ASP.NET Core, SQL Server
- **Repository:** <https://github.com/suxrobgm/blazor-form-builder>

ChessMate

- ChessMate is an online chess platform where players can engage in player-versus-player (PvP) matches or compete against AI. The platform supports both rated games and friendly matches, catering to a wide audience ranging from complete beginners to seasoned chess veterans. ChessMate's goal is to make chess more accessible and enjoyable for everyone by eliminating the need for physical boards or in-person opponents. This web-based application is developed with Spring Boot for the backend and Angular for the frontend.
- **Stack:** Angular, Java Spring Boot, Websocket, PostgreSQL, Auth0
- **Repository:** <https://github.com/suxrobgm/online-chess>

Bookshelf Scanner

- The Bookshelf Scanner App is an end-to-end solution for detecting books from an image of a bookshelf and identifying their titles and authors. It leverages cutting-edge computer vision (YOLO segmentation) and Large Language Models (Moondream2) to deliver a seamless user experience via a modern web interface.
- **Stack:** Python, TypeScript, Yolo, Llama CPP, Moondream2 LLM, PyTorch, FastAPI, Angular
- **Repository:** <https://github.com/suxrobgm/bookshelf-scanner>

AOE4 Matchmaking System

- The AoE4 Matchmaking project provides a machine learning-assisted matchmaking system for Age of Empires IV (AOE4) game. It combines player clustering, a predictive outcome model, and a traditional ELO fallback system to create fair and balanced matches between players.
- **Stack:** Python, TypeScript, FastAPI, Angular, Clustering, Jupyter, Pandas, Numpy, XGBoost
- **Repository:** <https://github.com/suxrobgm/aoe4-matchmaking>