

Work Experience

Fair Trade Technologies – President, Head of Design and Engineering 7/2015 – Present

Consultation and Development Services for FinTech and Simulation Projects
Managing work across a nationwide team
Developing Unannounced Mobile Title

Guaranteed Rate – Principal Software Engineer 12/2021 – 8/2022

As the Principal Engineer of the Product Engineering organization, I took ownership of development and architecture of many enterprise-wide apps and microservices

Writing multitenant, enterprise-scoped applications with configurable vendor integrations
Directing organizational architecture for new applications and services within the Product Engineering organization geared towards reducing enterprise-wide complexity and cost
Established the enterprise architecture “RFC” (Request for comments) system that allowed enterprise standards to be discussed and reviewed by all engineers in the enterprise before adoption
Managing technical interactions between external vendors, development teams, and stakeholders

Rocket Mortgage – Software Engineer 12/2018 – 11/2021

First to draw out the full architecture diagram of the Rocket Pro services, which exposed numerous issues and led to a streamlining of our systems.
Integrated legacy systems into Rocket Pro and vice versa.
Served as Tech Lead for early projects that laid the foundation for easy future additions.
Ideated, specced, wrote, tested, deployed, and integrated reusable libraries into downstream systems.
Mentored senior engineers in their use and modification.
Prototyped, refined, and finalized the CI/CD pipeline and server integrations for Rocket Professional.
Provided extensive code review feedback and mentoring during the entire development process.
Maintained extensive documentation, including but not limited to IDE setup processes for legacy systems, deployments, and major code updates.
Maintained an exceptionally high standard of communicating complex engineering information and processing it into easy-to-understand and non-intimidating bites for non-technical team members.

Clear Launch – Solution Architect 8/2017 – 6/2018

Developing mobile, web, and eCommerce applications for clients including:
Tiff's Treats, Build-A-Sign, Precision Autonomy, WellAware, Broomly
Translating customer/project requirements into discrete programming tasks
Supporting new projects by developing prototypes, mockups, and wireframes
Tech & languages included: C#, Unity, Azure, ASP.NET, MSSQL, Angular, MongoDB, Node.js

Redbird Flight Simulations – Senior Software Engineer 1/2016 – 7/2017

Full Stack Development for Flight Simulator and Aircraft products
Product Installer Development using Advanced Installer
Continuous Integration Setup and Administration using Jenkins, GitLab, and AWS

Architected Projects at Redbird Flight Simulations:

Satloc/AgNav Crop Duster Light Bars (C#, C++/C, .NET, GDI+) – Crop duster lightbar app.
Qualification Test Guide (Elixir, Phoenix, C#, .NET, PostgreSQL, SimConnect) – EASA App.
Guided Independent Flight Training Service (C#, .NET, SimConnect) – Mission grading service.
Navigator (Elixir, Phoenix, C#, .NET, PostgreSQL, Sqlite, SimConnect) – Flight Sim Interface.
Sidekick (Java, Python, BLE, Phidgets) – Flight recorder.

Work Experience Cont'd.

- EWI Worldwide – Technology Developer** 6/2013 – 6/2015
Managing Development department after departure of previous Technical Director
- Notable Projects at EWI:**
- AT&T - Connected Car** (Unity Game, C#, .NET, WPF, Javascript, Azure)
 - AT&T - Vehicle Lookup Tool** (C#, .NET, Objective C, Xamarin, iOS, Android, Azure)
 - Pavilion Park - Kids Table** (C#, .NET, WPF, Azure)
 - Kia - Driving Game** (C#, .NET, WPF, JavaScript, Azure)
- Internal Drive Tech Camps – Multiple Positions** 7/2012 – 3/2013
Acted as **Curriculum Developer** for the company's Game Academy division
Acted as **Lead Instructor** for a team of 6 game development instructors at the Harvard Game Academy
- Blackstone Academy Charter School – Contract Teacher** 3/2012 – 6/2012
Taught Chemistry, Physics, Biology, and Geology to students using improvised classroom games
- 38 Studios: Kingdoms of Amalur – Game Designer** 9/2010 – 2/2012
Product Owner for the BigWorld Server Scripting System and the UDK Client-Side Events System
Prototyped experimental game systems and scripted content for the game's Vertical Slice
- BioWare: Star Wars: The Old Republic – Game Designer** 7/2009 - 7/2010
Scripted multiplayer content for a story-driven, Star Wars-based, Massively Multiplayer Online Game
Worked with engineering to prototype and revise features to the Companion Character System
Held workshops with internal and external design teams to teach advanced game systems

Presentations & Speeches

Massachusetts Institute of Technology

- Causing Fear and Anxiety through Sound Design – MIT Museum 5/2011
- Making Games with Quickness and Awesomeness – MIT Game Lab 4/2012

Education

- Master of Interactive Technology – Southern Methodist University** 5/2009
First SMU Guildhall graduate to publish research thesis
Created methodology to study emotional responses created by games
Publication: Toprac, P. and Abdel-Meguid, A., Causing Fear and Anxiety through Sound Design in Video Games. In M. Grimshaw (Ed.), Game Sound Technology and Player Interaction: Concepts and Developments
- Bachelor of Science in Business Management - Illinois State University** 12/2007

Skills

- Languages & Frameworks:** C#, C++/C, .NET, AWS Infrastructure, Unity, Node.js, MongoDB, GDI+, Unreal Development Kit, Unreal Engine, Elixir, Erlang, Phoenix, COM, MVVM, MVC, PostgreSQL, MSSql, Sqlite, JavaScript, Java, Python, HTML/CSS, Xamarin, WPF, Lua, SourceSDK, HeroEngine, Radiant, Djinn
- Other:** Amazon Web Services, Microsoft Azure, Windows Installers, Flight Simulator Systems, Video Games