Ahmed Abdel-Meguid

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Portfolio: www.ahmedam.com

Technology Developer

Work Experience

Redbird Flight Simulations – Senior Software Engineer   1/2016 – Present

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

Notable Projects at Redbird Flight Simulations:

> **Satloc/AgNav Crop Duster Light Bars** (C#, C++/C, .NET, GDI+) – Emulates a physical LED-based light bar on a crop duster aircraft. Wraps light bar display driver code in a .NET app, processes messages from an actual GPS unit to create display buffer, then renders display buffer using GDI+.
>
> **Qualification Test Guide** (Elixir, Phoenix, C#, .NET, PostgreSQL, SimConnect) – Data-driven, automated flight simulator certification application. Runs flight simulator systems through automated maneuvers, then graphs and prints out flight model and motion platform data to EASA standards.
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> **Guided Independent Flight Training Service** (C#, .NET, SimConnect) – Back end Windows-based service for simulated flight training missions. This service implements a custom scripting language to allow for monitoring and grading of simulator status in accordance with mission parameters.
>
> **Navigator** (Elixir, Phoenix, C#, .NET, PostgreSQL, Sqlite, SimConnect) – Browser-based flight simulator interface. Exposes simulator functions by wrapping C# applications in an Erlang-based API. Scrapes simulator data and creates a navigational database containing most nav points on the Earth.
>
> **Sidekick** (Java, Python, BLE, Phidgets) – Flight recorder for small aircraft in flight schools. Uses Bluetooth Low-Energy technology to detect pilot dongles, and Phidgets devices for spatial awareness.

Fair Trade Technologies – President, Interactive Technology Developer   7/2015 – Present

> Providing all in-house interactive technology development and consultation services
> Managing contracted technical services
> Executing business agreements

EWI Worldwide – Technology Developer   6/2013 – 6/2015

> Developing applications and video games in interactive exhibits for clients including:
> **AT&T, Subaru, Pavilion Park, Dana, Kia, and La-Z-Boy**
> Managing Development department after departure of previous Technical Director

Notable Projects at EWI:

> **AT&T - Connected Car** (Unity, C#, .NET, WPF, Javascript)
> **AT&T - Vehicle Lookup Tool** (C#, .NET, Objective C, Xamarin, iOS, Android)
> **Subaru – Singing Animals** (C#, .NET, FMOD, WPF)
> **Pavilion Park - Kids Table** (C#, .NET, WPF)
> **Kia - Driving Game** (C#, .NET, WPF, JavaScript)
> **La-Z-Boy - Heritage Display** (C#, .NET, WPF)

Awards and Achievements at EWI:

> SoCal Awards – **Best Digital Sales Tool** – Pavilion Park Community and Kids Tables   9/2014
> E.X.C.I.T.E. Awards – **Best Interactive Exhibit** – Choose Your Subaru Adventure   6/2013
> Event Technology – **Best Audience Interaction** – Choose Your Subaru Adventure   11/2013
> Fox News Story Coverage – AT&T Connected Car   8/2013

Work Experience Cont'd.

Internal Drive Tech Camps – Multiple Positions   7/2012 – 3/2013

Acted as **Lead Instructor** for a team of 6 game development instructors at the Harvard Game Academy

Taught game development classes on UDK level creation workflow and development ideation

Held feedback sessions and showed how to think critically about game development

Acted as **Curriculum Developer** for the company's Game Academy division

Wrote interactive teaching materials for Unity, UDK, XNA, and Maya classes

Recorded in-depth video and audio tutorials on Unity and UDK workflow

Blackstone Academy Charter School – Contract Teacher   3/2012 – 6/2012

Ran an after school Game Development program for high school students

Taught Chemistry, Physics, Biology, and Geology to students using improvised classroom games

38 Studios: Kingdoms of Amalur – Developer   9/2010 – 2/2012

Scripted multiplayer content for a story-driven, fantasy-based, Massively Multiplayer Online Game

Worked with engineering to add and revise features to critical game systems

Product Owner for the BigWorld Server Scripting System and the UDK Client-Side Events System

Worked one-on-one with content designers to teach how to use new game systems as they rolled out

Prototyped experimental game systems and scripted content for the game's Vertical Slice

BioWare: Star Wars: The Old Republic – Developer   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, GDI+, Unity, Unreal Development Kit, Unreal Engine, Elixir, Erlang, Phoenix, COM, MVVM, MVC, PostgreSQL, Sqlite, JavaScript, Java, Python, HTML/CSS, Xamarin, WPF, Lua, SourceSDK, HeroEngine, Radiant, Djinn

Other: Amazon Web Services, Microsoft Azure, Advanced Installer, MSI Installers, Flight Simulator Systems

References available upon request