Contact

www.linkedin.com/in/lindsay-semler-4327222 (LinkedIn)

Top Skills

Entity Framework
Cloud Computing
Xamarin

Languages

MaxScript/MelScript (Professional Working)
Matlab (Full Professional)
React Native (Professional Working)
XML/JSON (Full Professional)
OpenGL (Professional Working)
Swift (Professional Working)
SQL/MySQL/NOSQL (Full Professional)
Flutter/DART (Professional Working)
C (Professional Working)
Perl (Limited Working)

Certifications

Certified ScrumMaster
Xamarin Certified

Honors-Awards

Collaborative Research Environment Award for Undergraduates in Computer Science and Engineering
Computer Research Association Women and National Science Foundation Award
Father Ralph Pansza Renaissance Scholarship
Accenture Fund for Academic Excellence Scholarship

Publications

Wavelet-Based Texture Classification of Tissues in Computed Tomography

Lindsay Semler

Senior Staff Engineer at The TJX Companies, Inc.
Greater Chicago Area

Summary

I have a BS in Computer Graphics and Animation Development, Physics Engineering, Visual Computing & MS in Software Engineering. I have worked in a multitude of different disciplines such as: Gaming, Medical Imaging, Computer Graphics, Educational Apps, AI, and Mobile (iOS, Android & Xamarin), and R&D.

I am a Full Stack Engineer, with experience in 3 years of Medical Research, 5 years of Graphics Research, 4 years of Embedded, 4 years of Web, and 10+ years of Mobile engineering. At Wheels, I worked with Xamarin, Azure, Google Cloud, and SQL. There I engineered mobile development and R&D. At Everi, I was Lead engineer and hiring manager for the Chicago office consisting of two teams for Engineers, Artists, Math Engineers, Producers and Game Designers. At AMI Entertainment, I jumped on several projects simultaneously, providing support for Game Development, Database rearchitecture, while completing my responsibilities as the sole iOS engineer. I have been a lead for a Unity iOS team of 5 engineers and 3 artists at TinyBop to create an educational app for children. At WMS, I engineered over 60 games from initial conception all the way through Product Assurance. I created new feature libraries, new functionality to the framework, and developed new tools for engineers, artists, designers, and product assurance. I initiated a new system for due diligence, agile development, and code and design reviews.

I have a significant amount of experience with innovative cutting-edge research. I algorithmically classified organs from CT scans using image processing. I was the first engineer in the world to engineer Curvelets for texture analysis. I pioneered multi-texture analysis techniques, such as Wavelets, Ridgelets,
And Curvelets in image processing. In my computer graphics research, I automated 3D animations algorithmically of the human body movement for animated American Sign Language translations.

Curvelet-base Texture Classification of Tissues in Computed Tomography

Ridgelet-based Texture Classification in Computed Tomography

A Comparison of Wavelet, Ridgelet, and Curvelet-based Texture Classification Algorithms in Computed Tomography

No One is Hopeless! One Alcoholic's Journey from Despair to Sobriety

I am disciplined and imaginative, always striving to improve myself as an engineer. I am capable of analyzing complex problems, investigating alternatives and providing concrete, well-thought-out solutions. I have considerable and varied experiences, am self-motivated, and an expert with multi-tasking. I consider myself a life-long learner always looking for a new challenge.

Specialties: Software Engineering, Mobile (iOS & Xamarin), Game Development, 3D Computer Graphics, Artificial Intelligence, Plug-ins, Image Processing, Texture Analysis, Data Analysis, Technical Documentation, Tool Engineering, Professional Ghost Writer & Editor, and Profesional Technical Writer

Experience

The TJX Companies, Inc.

Senior Staff Engineer

June 2022 - Present (1 year 6 months)

Remote

Manager of full stack mobile engineering of applications such as: TJ Maxx, Marshalls, HomeGoods, Sierra and Homesense.

Technical lead of front and backend technology to use for future development such as the move from Xamarin to Flutter, SDK reviews, and Azure architecture modifications.

Developed front end using Xamarin, Xamarin.iOS, Xamarin.Android, Entity Framework, C#, MVVM-Cross and backend using Azure, . Net framework, Google Cloud, and NoSQL databases

Developed Associate web application using Blazor, Function apps, NoSQL, C#, .Net framework, and Azure

Technical documentation and internal wiki for new engineers on setup instructions, general front-end architecture, general back-end architecture, references for new information and documentation for attachments from meetings of new architecture, Nuget Package references and version numbers, Admin App for web/Blazor design and functionality

Echo Global Logistics
Lead Mobile Engineer
December 2021 - June 2022 (7 months)
Remote

Lead mobile full-stack engineer developing transportation management mobile application using Xamarin, Xamarin.iOS, Xamarin.Android, Entity framework, C#, AWS, Azure, .Net framework, and SQL

Technical documentation and internal wiki for new engineers on setup instructions, general front-end architecture, general back-end architecture, references for new information and documentation for attachments from meetings of new architecture, Nuget Package references and version numbers

Mobile app connects businesses that need to ship their products with carriers who transport goods quickly, securely and cost-effectively

The app quickly adaptable, highly scalable, and uniquely easy to use for clients, partners, and vendors. This ensures better data collection and transmission, seamless communication, comprehensive reporting, and real-time visibility.

Wheels Inc
Lead Senior Software Engineer
February 2018 - January 2022 (4 years)
Des Plaines, Illinois

Wheel's Mobile Assistance application is a fleet services mobile app for drivers so they are able to manage multiple vehicles, automatically detect trips for trip logs, comply with the IRS, recieve maintenance and service notifications, and obtain insurance policy information as well as many other features.

Engineered mobile app using C#, Azure, .Net framework, SQL and Google Cloud on the Server and C#, Xamarin, Xamarin .iOS, Xamarin.Android, Entity framework as a Full Stack Engineer

Designed new services such as Google Cloud, Enterprise, and Azure in C# on the server
Developed new features and bug fixes using Xamarin, Xamarin.iOS, and Xamarin.Android for the client

Managed existing and new SQL and provided database management for Web and Mobile Service calls

Architected the Insurance module such as the development of printing or exporting Insurance PDF files

Built an automatic license plate recognition & registration using camera phone

Completed Natural Language Generations for Data Analysis of Driver Performance

Worked on fuel management system, image processing of photo of dashboard to find Odometer and use that to provide driver for fuel pin code to use at gas station pumps in order to no have to manage company credit cards for fuel

Technical documentation and internal wiki for new engineers on setup instructions, general front-end architecture, general back-end architecture, references for new information and documentation for attachments from meetings of new architecture, AI designs for image processing of VIN, License Plate, and Odometer, AI designs for Natural Language General of Driver Performance, Nuget Package references and version numbers
Used SQL for creation of Database for both Mobile and Web, as well as, created overnight functional applications aka. “Jobs” to use web database and cross reference and use for Mobile engineering.

InContext Solutions
Senior Software Engineer
September 2017 - February 2018 (6 months)
Chicago, Illinois

Engineered 3D simulations for retail stores such as Target,Jewel-Osco, 711, and Walgreens among other large box store chains

Developed application for companies to build their store including product placement using Unity

Product allows companies to try new ideas in a virtual store to seamlessly create and modify new in-store concepts

Application grants research analysis to find the most profitable product placement for concepts

Architected new features such as shelf and product duplication across the application using C#

Everi Holdings Inc.
Senior Software Engineer III
August 2015 - February 2017 (1 year 7 months)
Chicago, IL

Engineered games using JavaScript to create games for class II and III slot machines.

Helped build the Chicago office by a part of the hiring process for the engineering teams.

Lead engineer for two studio teams.

Mentors new engineers while engineering my own project as well as Lead Engineer.

Trained in being an extra slot machine mathmatics engineer to help with overload of work on our sole mathematician

Presented a shader demo's for both artists and engineers.

Technical documentation and internal wiki for new engineers on setup instructions, general front-end architecture, general back-end architecture, references for new information and documentation for attachments from meetings of new architecture, created pages devoted to artist demos amd internal classes as well as shaders, added Mathematician development explanations and documentation on how to create the math for slot machinrs

AMI Entertainment Network, LLC
Senior iOS Engineer
October 2014 - August 2015 (11 months)
Oakbrook Terrace, IL

Senior Engineer of iOS applications for bar entertainment and jukeboxes for BarLink and Tap TV

Engineered wallet, web services, and framework support for Game Development with Unity and C#

Programmed iOS Bar Link app to play music on bar jukeboxes from your phone using Objective C

Created Trivia Client library to retrieve database information for Trivia games using C# and SQL

Engineered new Location Manager iOS application for bar management to program entertainment

Added Geo-fencing and Apple Pay support and in app advertisements for iOS BarLink application

Tiny Bop Inc.
Lead iOS Engineer
May 2014 - October 2014 (6 months)
Brooklyn, NY

Engineered educational iOS applications for children inspired by children's books, toys, and films

Lead Engineer for Homes Game Development team consisting of 5 engineers and 3 artists

Architected iOS interactive educational game called Homes using Unity and C#

Created a framework library for future games, moving libraries from to Cocos2D to Unity

Implemented agile development practices for current and future games

Babaroga
Principle Software Engineer
January 2014 - April 2014 (4 months)
Chicago, IL

Engineered games in C++, Objective C, and C# for Windows, iOS, and Android devices

Developed multiple mobile iOS applications such as Zombies and Golden Tee

Programmed the front end User Interface system for 3D Golden Tee mobile app using Unity and C#

Williams Interactive

Principle Software Engineer

July 2012 - November 2013 (1 year 5 months)

Chicago

Developed online games in a client-server architecture for internal and external customers

Programmed 30+ casino games using ActionScript on the Client; C++ on the Server

Actively refactored and contributed to framework development for future games

Engineered common functionality between games and compartmentalized into feature libraries

Mentored new engineers and artists with both game and framework development in ActionScript

Created weekly lessons and tutorials for the artists to learn ActionScript

Lead efforts to document process and best practices on internal Wiki. Added Technical documentation and internal wiki for new engineers on setup instructions, general front-end architecture, general back-end architecture, references for new information and documentation for attachments from meetings of new architecture

WMS Gaming

6 years 4 months

Senior Online Software Engineer

January 2010 - July 2012 (2 years 7 months)

Engineered 30+ online games for JackpotParty.com in the UK

Initiated due diligence, design reviews, and agile development to improve processes

Generated Python scripts for the load testing games for the test department

Produced SQL scripts to update databases to manage game information

Developed tools for artists, game designer, and engineers to improve productivity

Created an art tool exporting flash classes and elements to an excel document for engineers

Principle Game Development Software Engineer

April 2006 - January 2010 (3 years 10 months)

Chicago

Engineered software for video and mechanical slot machines for 30+ games in C++ and Linux

Actively contribute to the ongoing software design and development process and contribute to development of interfaces, libraries and utilities

Directed projects from design conception through Product Assurance testing

Managed art, math, and design changes while meeting or exceeding deadlines

Engineered client and server software for Big Event Community Gaming machines

Started as an Associate Software Engineer and was promoted to Core Software Engineer and subsequently Senior Software Engineer within 4 years

DePaul University

5 years 6 months

American Sign Language Research Assistant

August 2005 - June 2009 (3 years 11 months)

Engineered software to automatically animate body movement based on hand motions

Completed a motion study of non-manual signals in American Sign Language sentences

Aided in automatic generation of animated sentences using 3D Studio MaxScript

Implemented new joint orientation for animations using motion study results

Continuing research to engineer additional non-manual signals, such as body movement, eye gaze, and head tilts, to animated sentences in order to enhance context.

Medical Imaging Research Assistant

January 2004 - June 2006 (2 years 6 months)

Developed software to classify organ tissue from CT Scans using Matlab, SPSS, and SAS

Implemented an automated imaging system for classification of tissues using texture analysis with co-occurrence matrices, run-length statistics and multi-resolution techniques
Explored muti-resolution texture classification such as Wavelets, Ridgelets, and Curvelets
Created decision trees to classify organs based on classifiers from the above techniques
Collaborated with DePaul's Visual Computing Group and Northwestern radiologists
Published a multitude of journal articles for visual computing and medical journals
First Engineer in the world of Curvelets for Texture Analysis at the age of 19
Made $2 million in government grants to continue medical imaging research each year since 2004, for a total of $36 million
Research lead to REU summer internship program

Education

DePaul University

MS, Software Engineering · (2006 - 2009)

DePaul University

B.S., Computer Graphics and Animation Developer · (2003 - 2006)