Alexander
BRIDGES

SOFTWARE ENGINEER

WHY ME?

Graduate of the Purdue School of Science at IUPUI with approximately 5 years of independent software development experience. Adept in multiple programming languages and skilled in managing the software needs of businesses and consumers while meeting educational deadlines and administering multiple time-sensitive projects. Seeking a full-time position in the field of software engineering where I can develop my talents and make the world a better place.

CONTACT ME

📞 +1 (317) 661-1448

✉️ alex.bridges@me.com

🏠 4509 W Main St
Apt C311
Kalamazoo, MI 49006

🌐 alexbridges.com

PROGRAMMING LANGUAGES

Swift	Objective-C	Java
Kotlin	C++	Python
C	PHP	R

CONCEPTS

Agile Development

Artificial Intelligence

System Design

Concurrent Design

Data Science

Computer Vision

JULY 2014 / PRESENT
PT INDEPENDENT CONTRACTOR at Unity Financial Life Insurance Company 📍 Indianapolis, IN

Responsible for the development, testing, implementation and maintenance of complex iPhone and Android applications.

Contracted to develop iPhone and Android applications used by national sales agents for the creation of insurance premium quotes. Retained for ongoing application maintenance and redesigns to suit the changing needs of Unity Financial agents and customers. Ongoing projects include the development of new iPhone and Android applications for the preparation of "Enterprise-level" insurance premiums by Unity sales agents.

The app was initially built for iOS using Objective-C, but once additional features were required, the app was moved to Swift and the user interface was further refined. After the iOS app was successfully launched, the Android app was built to closely mimic the design and features of the iOS app. Originally written in Java, the app was rewritten in Kotlin when the language was publicly released. Kotlin reduced the potential for bugs and errors while also making the code more readable and maintainable.

Project Accomplishments:
- Gained solid experience in Objective-C, Swift, Java, Kotlin, and related IDE software
- Cooperated with Vice President of Agency and Business Analysts throughout app creation to ensure all business needs were met
- Managed the release of both apps on the Apple App Store and Google Play Store

JANUARY 2019 / MAY 2019
SENIOR CAPSTONE PROJECT at IUPUI 📍 Indianapolis, IN

Responsible for the research and development of "Knowmole," an iOS app that uses computer vision and neural networks to help diagnose skin cancer.

Developed under Professor Mihran Tuceryan, the app processes photos taken on a smartphone and uses image segmentation to plot where skin moles appear. A cropped version of the image is saved for each mole found, and an in-app viewer shows a list of all moles captured along with a probability of malignancy generated by a convolutional neural network.

Project Accomplishments:
- Implementation of several cutting edge image segmentation and blob detection algorithms
- Built and perfected convolutional neural network using a training set of images
- Managed milestones and presented project on schedule

MAY 2017 / AUGUST 2017
INDEPENDENT GAME DESIGNER at Industrial Nemesis Technologies, LLC 📍 Indianapolis, IN

Responsible for the development and publication of "Oubliette Noir," an iOS puzzle/adventure game that uses random numbers to generate unique level designs, colors, and textures.

Published under Industrial Nemesis Technologies, LLC, a self-founded development firm.

Project Accomplishments:
- Creation of complex AI algorithms to provide a challenging game experience and optimization of software for mobile CPU/memory limitations
- Development of a reusable seedable random number generator, tamper-proof save system, and a system for in-game dungeon sharing with friends

EDUCATION

BACHELOR OF SCIENCE: COMPUTER SCIENCE

Purdue School of Science at Indiana University Purdue University Indianapolis
December 2019
Indianapolis, Indiana