Seth George

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Languages

C#/.NET
C++
C
Java
Python
JavaScript
WebGL

Tools

Unity
Visual Studio
Vizard
Maya
Photoshop
Eclipse
IntelliJ
Git
Trello
Jira
Google Docs

Soft Skills

Scrum
Agile
Project Management
Team Leadership
Design Patterns
Data Collection

Relevant Experience

Software Engineer

Optum *Minneapolis, MN* *July 2018 - Mar 2019*

- Used robotic process automation to automate healthcare applications
- Wrote acceptance tests to enforce acceptance test driven development
- Organized and extended documentation on standards and procedures

Tools Used: C#/.Net, OpenSpan, SpecFlow, Nunit, Gherkin, Confluence
Project: The Advocate for Me OpenSpan team is responsible for making a desktop assistant for healthcare advocates. This desktop assistant uses robotic processes to gather information from many different applications and forms, and automate work like tedious manual data entry tasks with the gathered information.

Robotics Lab Technician

Osaro *San Francisco, CA* *Dec 2016 - Aug 2017*

- Collected data to evaluate the machine learning experiments
- Piloted and maintained robots
- Wrote C++ and Python code to pilot robots with Vive controllers

Tools Used: C++, Python, OpenVR API, and Zenhub
Project: The Vive robot controller project was a self-given project while at Osaro, a startup focused on machine learning. The goal was to develop software that allowed remote control of a robotic arm with HTC Vive controllers. Working with a robotics engineer, C++ was used for controlling with the robot, and Python was used for gathering and recording tracking data output via calling the OpenVR API.

Virtual Reality Research Assistant (Independent Study)

VR Navigation Lab *Ames, IA* *Jan 2013 - May 2016*

- Created 3D virtual environment for VR experiments
- Wrote python scripts for Vizard to conduct studies
- Published for study on depth perception in virtual environments

Tools Used: Python, Vizard, and Maya
Project: The study was on why people underestimate distances in virtual environments. We used a replica of a real-world environment to see if it reduced the acclimation period for the virtual environment. I wrote python to run the experiment and made the replica with Maya. The paper was titled “Comparison of Two Methods for Improving Distance Perception in Virtual Reality”.

Education

Iowa State University of Science and Technology *Class of May 2016*

Software Engineering, Bachelor of Science
Psychology (Cognitive Focus), Bachelor of Science

Additional Experience

Full-Stack Software Developer (Contract)

Gopher Sport *Minneapolis, MN* *Jan 2018 - Mar 2018*

- Work with team to maintain four live websites
- Made bug fixes for the eCommerce websites
- Add features to their content management system

Tools Used: Java, Spring, JavaScript, MySQL, Thymeleaf, Broadleaf, and Trello
Project: This job was to work through the usual list of bugs that accompany a platform launch, as well as add some new features that were to be included shortly following the site launch, such adding custom features to the CMS that help control front-end content display.

IT Technician (Contract)

Proactiv IT *San Francisco Bay, CA* *Jun 2016 - Dec 2016*

- Set up workstations for tech companies in the Bay Area
- Was deployed to Inuit, LinkedIn, and Palantir, among others
- Lead teams and provided training for new hires

3D Graphics Designer

Department of Education *Ames, IA* *Summer of 2015*

- Made 3D assets for virtual classroom
- Created meshes and textures with Maya and Photoshop
- Models were donated to the open source community

IT Intern

Barilla *Ames, IA* *Summer of 2013*

- Sole on-site IT Technician in the entire plant
- Diagnosed issues and performed general hardware troubleshooting
- Lead training on computer use instruction and software tool use

IT Technician and Help Desk

Iowa State University *Ames, IA* *Aug 2011 - May 2016*

- Built computer labs for both faculty and student use
- Provided customer service as helpdesk and answering tickets
- Developed system for deploying hardware and software

Additional Projects

Worldbuilder

Self *2018 - Present*

Tools Used: C#, Unity3D

Project: Worldbuilder is a fantasy world generator in the same vein as Civilization, Endless Legend, or Dwarf Fortress. In its current form it is a hex grid made by generating a series of 3D meshes to represent tiles of varying elevations and biomes with rivers and towns. Next I will work on writing algorithms for pathfinding within the generated environment, and eventually create a system for the npc denizens to interact in the world evolve to the environment and their neighbors. A tangential goal is to procedurally generate encounter tables, maps, and quests for tabletop games such as D&D.

AI.one

Self *2016 – 2018*

Tools Used: C#, Unity3D

Project: AI.one is a space mystery virtual reality game developed in Unity3D. I was the producer and project owner of a multidisciplinary team. As lead, I was responsible for ensuring communication and team cohesion, making sure tasks are completed, and fulfilling any roles needed such as software engineer, software architect or technical artist.

Senior Design Project

Iowa State University *2016*

Tools Used: Java, JDBC, Python, and SQL

Project: The project name given by the professor was Machine Learning and Big Data: From Data to Decision Making with Application to Advertising and Promotion of a Steam Game. The idea was to build a graph of nodes from the information gathered via the Steam API and crawling the user and game profiles. After feeding that information into our neural network, we would be able to determine a given game's critical user nodes within its player base and see how much influential pressure that user puts on adjacent nodes within a cluster. Basically, it determines who are the trend setters within a group friends, and thus how to spread publicity via word of mouth the most efficiently.

Mind Maze

Iowa State University *2014*

Tools Used: C++, OpenGL, and QT

Project: Mind Maze was a group project for a Software Development Practices course at Iowa State. The goal was to use an EEG to register brain wave patterns as neural event triggers. We can then use those triggers to allow the user to navigate through a randomly generated 3D maze with thought.

Mars Rover

Iowa State University *2013*

Tools Used: Embedded C, iRobot Create, and a Cerebot II board with an ATmega128 microcontroller

Project: The goal was to navigate through an obstacle course using data gathered via the various sensors mounted on the robot. We also implemented a GUI of ASCII characters to display what the robot saw on our computer console. This project taught me about pointers, bit shifting, and events.