**Seth George**

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# Languages: C#/.NET, C++, C, Java, Python, JavaScript

**Tools:** Visual Studio, Unity, IntelliJ, Eclipse, Git, Vizard, Maya

# Soft Skills: Agile, Scrum, Project Management, Team Leadership

# 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.

## 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.

## 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.

**Education**

**Iowa State University of Science and Technology**  *Class of May 2016***Software Engineering**, Bachelor of Science  
**Psychology** (Cognitive Focus), Bachelor of Science

## 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”.

# Additional Experience

## 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 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

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# 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.

## 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, 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.