

# Seth George

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## Summary

I'm a software developer with +3 years of experience working in C#. My goal is to gain experience working in the graphics pipeline or working with VR and other emerging devices and technology. I also enjoy organizing projects, making tests, and things regarding UX or design.

## Languages

C#  
C++  
C  
Python  
JavaScript  
WebGL

## Tools

Unity  
Visual Studio  
Git  
Jira  
Google Docs

## Skills

Agile  
Scrum  
Project  
Management  
Design Patterns

## Work Experience

### **Software Engineer**

Optum                                      Minneapolis, MN                                      July 2018 - Mar 2019

- Write automation for healthcare applications
- Wrote acceptance tests to enforce acceptance test-driven development
- Organized and extended documentation on standards and procedures

**Tools Used:** C#, 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:** At Osaro, a startup focused on machine learning, my job was to perform tasks via the robot to collect mentor data for the research scientists. This data was used in the creation of neural networks. I performed analysis and curation of data while working within nearly all ongoing projects, reporting findings directly to the CEO.

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

**Tools Used:** Python, Vizard, and Maya

**Project:** The paper was titled "Comparison of Two Methods for Improving Distance Perception in Virtual Reality". 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.

## **Additional Experience**

### **Full-Stack Software Developer (Contract)**

Gopher Sport

Minneapolis, MN

Jan 2018 - Mar 2018

- Worked with team to maintain four live websites
- Made bug fixes for the eCommerce websites
- Added 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 as 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
- Led 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

- Was only on-site IT Technician in the entire plant
- Diagnosed issues and performed general hardware troubleshooting
- Led 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 a 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.

### **Al.one**

*Self*

2016 - 2018

**Tools Used:** C#, Unity3D

**Project:** Al.one is a space mystery virtual reality game developed in Unity3D. I was the producer and project owner of a multidisciplinary team. As the 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 the user puts on adjacent nodes within a cluster. Basically, it determines who are the trendsetters within a group of 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.