

# Seth George

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## Education

**Iowa State University of Science and Technology**

*Class of May 2016*

**Software Engineering**, Bachelor of Science

**Psychology** (Cognitive Focus), Bachelor of Science

## Languages

Java  
C#/.NET  
C++  
C  
Python  
HTML5 / CSS  
Bootstrap  
JavaScript  
WebGL  
QT  
SQL  
XML

## Tools

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

## Soft Skills

Scrum  
Agile  
Project Management  
Team Leadership  
Design Patterns  
Data Collection

## Relevant Experience

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

*Gopher Sport*                      *Edina, 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 as adding custom features to the CMS that help control front-end content display.

### **Robotics Lab Technician**

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

- Piloted and maintained robots
- Collected data to evaluate the machine learning experiments
- 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. C++ was used for controlling and interfacing 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 scripts to run the experiment and made the replica with Maya. The research 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 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

### **Caretaker**

*JB Consumer Choices*              *Newton, IA*                      *2009 - 2010*

- Ensured the health and social well-being of adult with several severe disabilities
- Aided with activities of daily living including grooming, toileting, and communication skills
- Maintained contact with family members involved in care

### **Crew Member**

*Culver's*                      *Newton, IA*                      *2008 - 2009*

- Handled cash and completed orders in a timely manner
- Excellent multi-tasker
- Delivered exceptional customer service

## **Projects**

### **AI.one**

*Random Made, LLC*

2016 – 2018

**Tools Used:** C#, Unity3D, and Trello

**Project:** AI.one is a space mystery virtual reality game developed in Unity3D. I am 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.

### **Othello**

*Iowa State University*

2016

**Tools Used:** C# and Unity

**Project:** This Unity project was done to learn about AI development, specifically the alpha pruning algorithm. This pruning technique is ideal for this game since the AI goes through all the possible moves to see what the most valuable move would be, and on the hardest difficulty the AI looks ahead 10 moves.

### **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.