Seth George

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Education

Iowa State University of Science and Technology

Class of May 2016

Software Engineering, Bachelor of Science

3 years

3 years

2 years

2 years

2 years

2 years

2 years

1 year

1 year

1 year

1 year

1 year

Psychology (Cognitive Focus), Bachelor of Science

<u>Languages</u>

Java

C++

Python

HTML5

WebGL

QΤ

SQL

XML

Bootstrap

JavaScript

C

C#/.NET

Relevant Experience

Full-Stack Software Developer

Gopher Sport Edina, MN 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, Trello **Project:** This job was to help work through the usual list of bugs that accompany a platform launch, as well as some new feature build-outs that were slated for inclusion shortly following the site launch. I also added custom features to the CMS that help control front-end content display.

Tools

Unity 3D 3 years Vizard 3 years Maya 3 years Photoshop 3 years **Eclipse** 3 years IntelliJ 1 year Visual Studio 2 years Git 3 years Trello 2 years Jira 1 year Google Docs 3 years

Robotics Lab Technician and VR Pilot

Osaro San Francisco, CA 2016 - 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, and Zenhub

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

Soft Skills

Design Patterns
Communication
Creativity
Adaptability
Collaboration
Leadership
Project Management
Troubleshooting
Scrum
Agile

Research Assistant and VR Developer

VR Navigation Laboratory

Ames, IA

2013 - 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.

Projects

AI.one

Random Made, LLC 2016 – 2018

Tools Used: C#, Unity3D, and Trello

Project: Al.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, 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.

Additional Experience

IT Technician

Proactiv IT San Francisco Bay, CA 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 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 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 2011 - 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

JBConsumer Choices Option 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