

Joseph C. Peterson

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Education

St. Olaf College, Northfield, MN

Bachelors in Computer Science

Aug. 2014 – May 2018

- Cumulative GPA: 3.4

Relevant coursework: Algorithms and Data Structures, Parallel and Distributed Computing, Hardware Design, Logic Programming

Skills

Programming Languages: C++, Python, Javascript

Technologies and Frameworks: Git, Linux, Bash, Three.js, Django, GLSL

Experience

Lead Beowulf Cluster Manager, St. Olaf College, Northfield, MN

May 2016 – Present

- Administrated networks, web servers, and laboratory workstations for 100 users
- Collaborated with students and faculty to utilize high performance Linux clusters and workstations in research projects

SIGGRAPH Student Volunteer, Los Angeles, CA

Aug. 2017

- Ushered 3D computer graphics research and animation industry lectures
- Answered questions from attendees on conference events and locations

Python Web Developer, St. Olaf College, Northfield, MN

WebMapReduce

May 2017 – Aug. 2017

- Redesigned Django frontend to expand data processing options for users
- Integrated custom ReST API for submitting jobs to Hadoop data processing backend
- Configured and developed GitLab CI testing environment

Software Design Teaching Assistant, St. Olaf College, Northfield, MN

Aug. 2016 – May 2017

- Assisted 40 students in learning C++ object oriented programming
- Hosted lab assignment help sessions for two classes of students

Projects and Presentations

4D Geometry Viewer, St. Olaf College, Northfield, MN

Jan. 2017 – Present

- Collaborated with a St. Olaf math professor teaching a course on 4D geometry
- Developed 3D plane/triangle and 4D cube/tetrahedron intersection algorithms
- Reduced memory consumption by identifying and managing detached DOM nodes

Progressive Mesh Streaming, St. Olaf College, Northfield, MN

Jan. 2016

- Built web frontend for displaying polygon and texture data from AJAX requests
- Improved navigation and benchmark tools

Web-Based Mobile Display of 3D Models, MICS Conference, Cedar Falls, IA

April 2016

- Presented our research on mesh streaming to faculty and students of regional universities

Coder Dojo Mentor, Arcadia Charter School, Northfield, MN

Nov. 2016 – Present

- Taught JavaScript, Python, and Scratch to 25 elementary and middle school students