

Alexander H. W. Grant

Portland OR

📞 (603) 667 5542 • ✉ alex.h.w.grant@gmail.com • 🌐 grantal.net
linkedin.com/in/grantal • github.com/grantal

Summary

Web developer with extensive experience working successfully in small teams to make large-scale Django apps.

Technical Skills

o Python, C, Java, Javascript, HTML, bash, SML/NJ, Go, CSS, C#, C++, SQL, Ruby, Markdown, R, dplyr, ggplot2
o vim, Git, Github, SVN, Travis CI, Django, Flask, Node.js, RoR, Pytest, Selenium, JQuery, L^AT_EX, WebGL

Education

Reed College

Bachelor of Arts in Computer Science and Mathematics

Coursework included Cryptography, Computer Systems, and Graphics.

Portland, OR

Aug 2014–May 2018

Dartmouth College

Community Student

Completed four undergraduate computer science classes while in high-school.

Hanover NH

Sept 2013–Mar 2014

Projects

The source code for these projects is presented at grantal.net/projects.

grantal.net

Personal Project

Updating my personal website to show my love for 3D graphics while maintaining usability. Deployed to github pages.

React, three.js

Sept 2018–Present

TI4Calc

Open Source

Project started by alpha-mouse on github. It is a webapp that predicts the outcomes of battles in the board game *Twilight Imperium*. I am currently improving the mobile experience of the app. Deployed to github pages.

Vue.js, RGraph, Bootstrap

Jul 2018–Present

Backpack-Builder

Personal Project

A React website that lets you select backpacking equipment and gives you the total weight of that equipment. Deployed using github pages.

React

May 2018

WebGL-Sandpiles

Reed College Undergraduate Thesis

The Abelian sandpile model is the simplest representation of self-organized criticality. As such, the model can be used to explore self-organized critical systems in both mathematics and physics. I developed a WebGL 3D simulation of the Abelian sandpile model as my independent research project for my senior thesis. Deployed the simulation to github pages and to Reed's static site hosting. Developed a function approximating the identity on a circular sandpile with R and produced data visualizations of the approximation.

JavaScript, WebGL, Pengiun, jQuery

Sept 2017–May 2018

Tiger Compiler

Reed College Coursework

Worked cooperatively with three other students in the upper-level class "Compiler Design" to develop a compiler for a functional language. Implemented automated tests at each stage of compilation using the Catch2 framework.

C++, Catch2, Flex, Bison

Feb–May 2018

Paneity

Reed College Software Design Studio

Worked with a team of four students to develop a website for connecting tutors to students. Created automated unit tests for the website using Django's test runner. Deployed to a Linux VM with Apache.

Django, PostgreSQL, jQuery, Bootstrap

May–Aug 2017

django-private-chat

Open Source

Ported this project, which is maintained by the Bearle team, to Paneity. Solved issues with tests running on Travis CI. Fixed the example code.

Django, Websockets, Asyncio

Jun 2017

Kronos

Reed College Software Design Studio

Worked with a partner to make a website for scheduling oral defenses of senior theses. Made a suite of tests with PyTest.

Flask, PostgreSQL, jQuery, Bootstrap

May–Aug 2016

Vrfy

Reed College Software Design Studio

Worked on a two-person team to create a web application to grade computer-programming assignments. Made automated tests with Django's test runner. Deployed to a Linux VM with Apache.

Django, PostgreSQL, Docker, Celery, Bootstrap

May–Aug 2015

Test Editor

TomTom

Web application deployed to a Windows machine that provided software testers a single interface in which to evaluate all elements of their jobs.

Node.js, Express, PostgreSQL, jQuery

Jun–Aug 2014

Work Experience

C2 Education

SAT Math Tutor

Worked individually with students to improve their mathematical skills. Several got perfect scores in practice tests for SAT Math section and Mathematics Level 2 Subject Test.

Beaverton OR

Jun 2018–Present

Centennial High School

Tutor

As part of the Schools Uniting Neighborhoods program, assisted students after school with their mathematics homework. Developed interpersonal skills; empathy, honesty, and humor, to succeed as tutor.

Gresham OR

Mar–May 2018

Reed College

Van Driver

Supported the academic community by driving a fifteen-passenger van for physical education classes.

Portland OR

Sept 2015–Mar 2018

Trip Leader

As part of Reed's orientation program, lead a group of incoming Freshman on a backpacking excursion to the Cascade Mountains.

Aug 2018

Peer Tutor, Philosophy 201 Logic

Nominated by a professor to help other students with Logic.

Sept 2016–May 2018

Software Design Studio Intern

Collaborated with other students on various Python-based WebApps for the school. Communicated effectively to meet project deadlines. Worked nights and weekends to keep the projects running, several of which were adopted by Reed College. Maintained the software after their adoption. These efforts are described in the "Projects" section.

Jan 2015–Dec 2017

Web Support Services Intern

Created a mock scheduler with JavaScript for the class-list website.

Sept 2014–Jan 2015

TomTom

Intern

Following agile-development principles, created an Express.js-based website to display and to edit test-job information from a PostgreSQL database.

Lebanon NH

Jun–Aug 2014

Hannaford Supermarket

Center Store Associate

Responsible for stocking shelves and facing products.

West Lebanon NH

Jul–Oct 2013

Interests

- Sports
- Cycling
- Resistance training
- Strategy board games
- Twilight Imperium
- Backpacking
- Diplomacy