

Thesis Portfolio

A Gamified Course Visualization, Organization, and Assessment System
(Technical Report)

**On the Distribution of Political and Electrical Power:
Lessons to be Learned from China, Lessons to be Applied to Charlottesville**
(STS Research Paper)

An Undergraduate Thesis

Presented to the Faculty of the School of Engineering and Applied Science
University of Virginia • Charlottesville, Virginia

In Fulfillment of the Requirements for the Degree
Bachelor of Science, School of Engineering

James Patterson
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Department of Computer Science

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Thesis Prospect

Sociotechnical Synthesis

The technical thesis relates to the ability of a professor to fine-tune their course to a growing number of Computer Science students not only at the University of Virginia, but through a platform which may be applied across universities. A group of students and researchers investigated not only the potential capabilities of this system, but also the ins and outs of developing this system based on the work of previous semesters' groups. In total, this report outlines the facets in which the team struggled, the things they learned, and the new abilities of this pedagogical system.

The STS thesis investigates the cultural differences between the United States and China through an investigation of the energy consumption and conservation activities in two cities: Charlottesville, Virginia and Hangzhou, Zhejiang. Through interviews, expert analyses, town hall meetings, and a survey of local media, distinctions may be drawn between the cultures within the United States and China, outlining where and how different cultures view the compromise between personal freedom and collective empowerment.

The technical and STS theses are not related.