

# A L E C S W E E T

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## EDUCATION

**University of Texas at Austin**  
**GPA: 3.2**

*Bachelor of Science in  
Computer Science, May 2021*

Relevant Coursework

- Software Engineering
- Principles of Computer Systems
- Computer Organization and Architecture
- Data Structures
- Matrices
- Probability and Statistics
- Discrete Mathematics

## LANGUAGES

Java	7yrs	Proficient
C/C++	2yrs	Familiar
Python	1yr	Familiar
JS	1yr	Familiar
HTML5/CSS	1yr	Familiar
C#	.5yrs	Beginner
Lua	.3yrs	Beginner
Bash	2.5yrs	Beginner
SQL	.5yrs	Beginner

## TECHNOLOGIES

GitHub/GitLab/Git  
OpenGL ES 2.0  
Docker  
Apache: Maven, POI  
Amazon MWS  
AWS: RDS, Elastic Beanstalk  
Flask/SQLAlchemy  
Selenium  
Jsoup  
jQuery  
IDEs: Eclipse, Android Studio, Visual Studio  
Agile Methodology

## PROJECTS

### Pixel Invaders, Sole Developer

*Android Mobile Game: Planned Release October 2020*

[https://github.com/Sweet96/Pixel\\_Invaders](https://github.com/Sweet96/Pixel_Invaders)

- Wrote 15,000+ lines of code with core Java 8 and OpenGL ES 2.0
- Developed a logarithmic collision detection algorithm that handles dynamic pixel by pixel destruction of multiple enemies consisting of thousands of pixels each
- Developed a linear blob detection algorithm which allows the efficient detection of stray pixel groupings
- Built a multithreaded engine that runs at 60fps under normal circumstances with budget hardware (Snapdragon 808 CPU+ and an Adreno 418 GPU+)

### Pixel Invaders Website, Sole Developer

*Pixel Invaders Exhibition Website: Planned Completion March 2020*

[https://sweet96.github.io/Pixel\\_Invaders](https://sweet96.github.io/Pixel_Invaders)

- Developed from scratch using JavaScript with jQuery, HTML5, and CSS
- Implemented responsive website architecture that formats properly given almost any hardware and resolution
- Created an efficient full-page parallax effect with dynamic user interactivity to mirror the Pixel Invaders ingame environment

### PolicyAnd.Me, 5 Developer Team

*Website Database for US Policy Information: Planned Completion December 1<sup>st</sup>, 2019*

<https://PolicyAnd.me>, <https://gitlab.com/Uongio/cs373-idb>

- Constructed database hosted with AWS' RDS using MySQL populated with US policy information ascertained from other RESTful APIs
- Created a RESTful API for data which is documented with Postman
- Helped Implement a backend with Flask and SQLAlchemy hosted by AWS' Elastic Beanstalk to retrieve data for our frontend
- Adhered to an Agile working environment with CI, test-driven development, pair programming, frequent team meetings, roughly 2-week sprints, goal setting, time estimations, and rotating team leads

### PintOs, 3 Developer Team

*A Basic, Private Iteration of Stanford's PintOs*

- Worked constructively with a team through effective communication, use of GitHub, and pair programming techniques
- Implemented basic OS functionalities including threading, virtual memory, process management, and a file system

## WORK EXPERIENCE

### Product Listing / Independent Software Development

*KdProTools, Online | June 2016 – May 2018*

- Responsible for developing software with Amazon MWS integration to search, gather, and compare product data in order to create and populate product listings
- Developed web scraping scripts with Selenium, Jsoup, and Apache POI to gather supplier information and export it to Excel spreadsheets
- Developed software to handle price updating for a 30,000+ item inventory
- Analyzed and resolved issues with 3<sup>rd</sup> party product management software

Notable Performance:

- Increased average gross monthly sales from ~\$61,000 to ~\$134,000 and net profit by 224% over a 1.5-year period