

Panhavuth Lau

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- OBJECTIVE** Looking for a career in frontend web/software development or game development in 2021
- EDUCATION** **Worcester Polytechnic Institute (WPI)**, Worcester, MA
Bachelor of Science in Interactive Media and Game Design (IMGD)
- SKILLS**
Programming: Javascript, Python, C#, C++, Java, Kotlin
Frameworks: SvelteJS, ReactJS, Angular, Flutter
Softwares: Unreal Engine, Blender, Adobe Photoshop, Godot, Perception Neuron (Motion Capture), Reaper, Visual Studio Code
Operating Systems: Windows, Mac, Linux (Ubuntu)
- JOB** **Software Engineer I, Staples** (April 2021 - present)
- Transitioned a massive file generation program from Java to Go, and saw a performance boost of 10x; Average runtime from more than 30 minutes to under 2 minutes
 - Develop front end user interface for package tracking deliveries
 - Test, debug, and resolve issues with internal API with test-driven development in mind
 - Resolve critical vulnerability issues with AquaSec program
- PROJECTS**
- Recipe Creation and Food Storage App, Independent** (In progress)
- Prototyped a mobile app that allows users to keep track of what groceries are in the house and where they are being stored
 - Implemented various JS libraries and modules; Framer Motion, Typescript
 - Studied and implemented React best practices and SEO in order to implement a recipe sharing feature
- Haptic Cinema Experience App (IQP and MQP), WPI** (March 2021)
- Researched the use of physical sensation technology in 20th century cinema with teammate:
[Percepto: The Birth of Haptic Cinema](#) (IQP)
 - Prototyped a modernized mobile design to imitate Percepto by allowing one user to send haptic feedback to multiple users
 - Created Cloud Functions that allow users to host multiplayer sessions within temporary lobbies while utilizing Realtime Database and Firestore
 - Implements frontend Flutter framework with backend Firebase
- Mobile and Ubiquitous Computing, WPI** (Oct 2020)
- Designed, prototyped, and developed with teammates a fullstack task app that allows users to record to-do list tasks on their device which may be accessed offline or by linked users
 - Programmed in Android Kotlin framework for frontend and MongoDB Realm as the backend
- IMGD Technical Development I and II, WPI** (Sept 2019, May 2020)
- Developed a text-based game engine with C++ within Visual Studio

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- Learned Entity Component System design in order to develop the game engine
- Developed and blogged about a rhythm game with teammates in Unreal Engine: <https://2-4.netlify.app/>

Just Dance Query Web App, Independent (Dec 2019)

- Developed a web app to enable students to queue up Just Dance songs with their phones
- Utilized Google Sheets API as a database with Bootstrap 4 for stylization
- Set up and hosted biweekly events in collaboration with the Goat's Head restaurant at WPI
- <https://github.com/JustDanceWPI/just-dance-catalog>

Digital Game Design Studio, WPI (Oct 2019)

- Developed a musical game where players interact with musical instruments in order to grow and blossom a massive tree
- Designed 2D UI assets for users to interact with virtual musical instruments
- Designed a survey for players to provide feedback tests
- Playtested and provided feedback on gameplay for other games
- [URL Link to GitHub project](#)

Audio Implementation I and II, WPI (May 2018, Dec 2018)

- Configured audio soundtracks in Unreal Engine by adjusting their properties
- Created looping soundtracks for games with endless time restrictions in Reaper.
- Generated music tracks through FL Studio

Human-Computer Interactions, WPI (Mar, 2018)

- Collaborated with teammates to design multiple projects focusing on user experience
- Incorporated Affectiva SDK to track the user's face and create a custom playlist based on their current emotion
- Created an interactive chatbot centered towards giving social care for post-incarcerated inmates

Software Engineering, WPI (Mar 2018)

- Implemented Agile methodology with weekly strategy meetings for software development with four teammates
- Learned software design patterns/anti-patterns such as Singleton, Builder, Factory, etc.
- Created a software that allows admins and teachers to generate and schedule courses for their students