Terrance Niechciol

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eat.sleep.build

Work Experience

Remind (Co-op evaluations: Outstanding/Excellent)

- Replaced a prototype chat backend with a chat micro-service to separate chat performance concerns from the main API
- Rewrote the web dashboard using React for feature parity with the mobile clients
- Updated SMS copy to be more user-friendly and clear, resulting in the largest increase in SMS users installing the app in years
- Consolidated old cross-platform prompt systems into a flexible, easy-to-extend system that's been adopted by other teams successfully

remind.com/about
San Francisco
Jan. 2015 - Aug. 2015, May 2016 - Aug. 2016
{ } Ruby, Go, Javascript, Java
Rails, DynamoDB, React.js, Android

A Thinking Ape (Co-op evaluations: Excellent/Excellent)

- Developed the iOS frontend of a prototype poker app focusing on playing with friends, which eventually became Pineapple Poker
- Created and improved analytics tools on the metrics team in order for them to filter information faster and be able to see a user age breakdown for specific days
- Developed frontend features for a 3D racing game on Android, including an interactive map, and the movement/drifting animation for the cars using GLES 2.0

athinkingape.com/about
Vancouver
May 2013 - Aug. 2013, Jan. 2014 - Aug. 2014
{ } Objective C, Python, Javascript, Java
iOS, Django, Android, GLES 2.0

Personal Projects

Geometry Wars Clone

- Created a clone of the Xbox Live Arcade game Geometry Wars to learn how to implement effects like the deformable grid, and bloom
- Particles are simulated on the GPU to have hundreds of thousands without slowdown
- The deformable grid is also simulated on the GPU but is affected by ships and bullets
- The dynamic music system plays more intense music when there are more enemies

eat.sleep.build/Projects/GeoWarsClone
youtu.be/Xv-3VLCFOQM
Sept. 2013 - Dec. 2013
{ } Scala
LWJGL, OpenGL, GPGPU

ATA Co-op Hackathon Game

- Created a 2D multiplayer deathmatch platformer for a 48-hour hackathon at A Thinking Ape with two other programmers, and two artists
- Added the ability for players to phase through walls to add variety to the combat
- Responsible for movement and level collision, and graphical effects like bullet trails and the desaturation effect when phasing through walls

eat.sleep.build/Projects/ATAHackathonGame
youtu.be/y7BLvpp1HIY
A weekend in April 2014
{ } Java
libGDX, OpenGL

Deferred Renderer with SSAO

- Created a tech demo to learn how to implement some modern graphics techniques
- Implemented normal mapping and specular mapping to make walls look more detailed
- Implemented deferred rendering to efficiently render many lights
- Used depth information from the deferred rendering process to create a screen space approximation of ambient occlusion, to have light falloff more realistically in corners

eat.sleep.build/Projects/DeferredRenderer
youtu.be/eJY72rMtFx4
Sept. 2014 - Dec. 2014
{ } Scala
LWJGL, OpenGL

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- Created a Haskell webapp running on top of lighttpd
- Created an Html DSL using monads to programmatically compose html
- Built from a "Hello World" Haskell application into a full website to better understand how other frameworks like Django and Rails work

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Nov. 2012 - present
{ } Haskell
lighttpd

School

Computer Science student at the University of Waterloo — Expected graduation: August 2017