

# Languages



- C++
- C#
- JavaScript
- Python
- Java
- HTML / CSS

#### Software



Visual Studio, Unity, Git, Blender, Maya, Photoshop

# School



UC Santa Cruz

B.S. Computer Science:

Computer Game Design

Univ. College Cork
Semester Abroad
in Ireland

# Zachary A. Petersen

(650) 272-0714 ■ zacharypetersen1@gmail.com ■ www.ZachPetersenDev.com www.linkedin.com/in/zachary-petersen ■ www.github.com/zacharypetersen1



# **Projects**

#### Flora (PC Open World Video Game) - Project Lead

(Fall 2016 - Present) - 9 Programmers, 3 Musicians, 2 Artists - playflora.com

- o Oversee engineering, plan weekly goals to meet deadlines. Break down tasks and delegate to team members.
- o Build material and post process shaders to get vibrant cel shaded style.
- o Build core gameplay mechanics like player controller, camera, abilities.
- o Design/Create game's webpage and setup website's server.
- o Model, rig, and animate the characters for the game.

#### Picar.io (Web Multiplayer Video Game) - Programmer

(Winter 2017) - 4 Programmers - picariogame.com

- o Build Python server that updates clients.
- o Implement spatial hashing optimization to reduce amount of info needed to update each client per tick.
- o Implement seamless add/drop player functionality.

# High Frequency Trading (Web Based Economics Experiment) - Programmer (Spring 2016 - Winter 2017) - 5 Programmers, 3 Econ Professors

- Build simulated stock market with interactive web page interface for subjects to use.
- o Write data visualization module to display market status to subjects.
- o Incorporate websockets in clients to communicate with remote market using NASDAQ OUCH protocol.



# **Positions**

## Founder - The Game Bakery

(Winter 2016 - Spring 2017)

- o Indie game studio formed in Santa Cruz for the creation of "Flora."
- o Interview/Recruit programmers, musicians, and artists.
- o Facilitate the flow of ideas between team members, run design meetings and handle cross discipline communication.

#### Programmer - LEEPS Economics Lab

(Spring 2015 - Winter 2016)

- o Write client side of browser-based economic experiments.
- o Mentor two newly hired programmers.