

ZACHARY PETERSEN

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EDUCATION

University of California: Santa Cruz

Sep 2013 - Jun 2017

Bachelor of Science, Computer Science: Game Design

EXPERIENCE

Medical Simulation Software Engineer

Jul 2020 - Current

Elara Systems

Sacramento

- Primary software engineer on two surgery simulators and two behavioral simulators.
- Added mesh breaking and tearing to soft body physics library.
- Improved physics loop performance by over 50% to within 2ms target.
- Constructed virtual eye that surgeons can interact with using haptic devices.

Software Engineering Intern

Jan 2018 - Apr 2018

Roblox Corporation

San Mateo, CA

- Investigated and fixed bugs on Roblox's Xbox platform with over 1M users.
- Built front end of new social features.
- Quickly learned the Roblox development platform.

Programmer

Mar 2015 - Dec 2016

LEEPS Economics Lab

Santa Cruz, CA

- Built simulated Stock Market with interactive web page for subjects to participate in experiment.
- Created message passing system between market and subject clients.
- Built serializer to convert message objects to low level NASDAQ protocols.

PROJECTS

Dravenwatch

Jan 2018 - Nov 2018

zachpetersendev.com/#Dravenwatch

Prototype created to study gameplay programming by recreating a character from *League of Legends* as an *Overwatch* character in UE4.

Flora

Jan 2017 - Dec 2017

store.steampowered.com/app/733480/Flora

Third person real time strategy game featuring AI driven agents. Over 50K downloads from Steam with a 70% positive review rating. Was project lead (team of nine) and also built core systems like player controller.

SKILLS

Languages C++, C#, Lua, Python, JavaScript

Software UE4, Unity, Visual Studio, Perforce