Ethan **Buttimer**

COMPUTER SCIENCE · COMPUTER GRAPHICS ENGINEERING · 3D ANIMATION PRODUCTION

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Education

University of California, Berkeley   *Fall 2018 - Spring 2022*

COMPUTER SCIENCE B.A. AND CERTIFICATE IN DESIGN INNOVATION. EXPECTED GRADUATION SPRING 2022. GPA: 3.97

Coursework: Computer Graphics (C++, OpenGL), 3D Modeling and Animation (Maya 2020, Houdini, Python), Artificial Intelligence and ML, Functional Programming (Python, SQL), Data Structures (Java), Discrete Math and Probability Theory, Linear Algebra and Differential Equations, Multivariate Calculus, Design Methodology, Virtual Reality (C#), Film History, Computer Architecture (C, RISC-V), Sound Computing (Max 8)
Activites: 3D Modeling and Animation at Berkeley (3DMA), Pianist in Chamber Music Ensemble, Cal Hiking and Outdoor Society (CHAOS)
Honors: Upsilon Pi Epsilon CS Honor Society, Sigma Phi Epsilon Balanced Man Scholarship Winner, National Merit Scholarship Winner

The Animation Collaborative   *Fall 2019*

INSTRUCTOR MICHAL MAKAREWICZ OF PIXAR ANIMATION STUDIOS

Coursework: Fundamentals of Animation

Experience

UCBUGG 3D Modeling and Animation   *Jan 2020 - Present*

HEAD COURSE FACILITATOR AND 3DMA CLUB TREASURER

- Delivered lectures and developed lab assignments related to the 3D animated film pipeline
- Provided guidance and technical support to student production teams
- Organized and promoted campus events to engage with the computer graphics industry
- Led course staff meetings and managed club finances

Geopogo AR   *Aug 2020 - Present*

SOFTWARE ENGINEERING INTERN

- Designed user interfaces for a Unity-based architectural modeling product
- Developed editor tools including an interactive procedural wall generator

Coding4Youth Inc.   *Jun 2019 - Present*

COURSE CONTENT DEVELOPER AND ONLINE PROGRAMMING INSTRUCTOR

- Created projects, quizzes, and lecture slides for courses on Python, HTML/CSS/JS, Scratch, Roblox Studio, and Lua
- Taught interactive courses on creative programming and game development to over a hundred students

Digital Porpoise LLC   *Summer 2017, 2018*

WEB DEVELOPMENT INTERN

- Revised marketing content and created a help system for the company website
- Configured and tested a software product using an agile bug-tracking tool (Pivotal Tracker)
- Managed email campaigns (Mailchimp), CRM (Insightly), and social media posts

Projects

***Mirage* (3D Animated Short Film)**   *Sep 2020 - Jun 2021*

TECHNOLOGY AND SIMULATION LEAD, CNM190 ADVANCED DIGITAL ANIMATION PRODUCTION TEAM

- Programmed custom tools to improve texturing and effects workflows (Python and MEL)
- Created procedural particle simulations for the main disintegration effect (Houdini)
- Shaded, rigged, and animated character models (Maya, Substance Painter, RenderMan)
- Designed and modeled 3D assets (Maya)

Path-Traced Blackbody Glow Simulation   *Spring 2020*

SOFTWARE DEVELOPMENT TEAM MEMBER, COMPUTER GRAPHICS AND IMAGING (CS184) FINAL PROJECT

- Programmed emission and reflection calculations based on material attributes, temperature distributions, and physical laws
- Implemented core path-tracing algorithms (C++) and a custom COLLADA file format
- Conducted performance testing and implemented color spectrum caching