

# Matt Boyd-Surka

msurka@seas.upenn.edu | [getinthedamnbox.com](http://getinthedamnbox.com) | [linkedin.com/in/mattboydsurka](https://www.linkedin.com/in/mattboydsurka)

## EDUCATION

---

University of Pennsylvania Aug. 2017 - Present

Computer and Information Technology (MCIT), Computer Graphics and Game Technology (CGGT)

Developed numerous software applications over two years of study, including the following:

- Data analysis (Java): street-map visualizer, book analyzer, recommender system.
- Graphics (C++): rasterizer, mesh editor, Minecraft clone, ray tracer, path tracer.
- Plugins (C++/Maya/Houdini): L-system editor, sand simulation.
- Games (C#/Unity): online multiplayer racer, VR butterfly catcher.
- Low-level tools (C): assembler, compiler, reverse assembler, multithreaded server.

Currently studying: database and information systems, web programming, and augmented reality.

Brown University Sept. 2007 - May 2011

English (Nonfiction), Political Science (American Politics)

## EXPERIENCE

---

Teaching Assistant: Game Design Practicum Aug. 2019 - Present

Teaching Assistant: Data Structures and Software Design May 2019 - Aug. 2019

Programmer/Lead Producer: Massachusetts Digital Games Institute May 2018 - Aug. 2018

Program Manager: National Fund for Workforce Solutions Sept. 2013 - Sept. 2016

Research Editor/Associate Director of Research: CFO Research Jul. 2011 - Sept. 2013

## PROJECTS

---

Programmer/Lead Producer: Lead the Light May 2018 - Aug. 2018

An action game for iOS/Android. Developed during MassDiGI's Summer Innovation Program.

- Managed a team of four programmers, two artists, and one sound designer using Kanban.
- Created gameplay and level-design systems, with a focus on making designer-friendly tools.
- Implemented numerous features including physics, spawning, controls, and boss behavior.
- Conducted frequent external tests with local organizations throughout development.

Programmer: LiquidMaps Dec. 2017

A Java application that creates an animation of a city's roads using GraphHopper.

- Worked with two other developers to design, develop, and test the application.
- Assumed ownership of the animation code, integrating it with the main program.
- Refactored code responsible for managing trip data and converting it to screen space.

Project Lead: Bulwark in the City of Flesh Nov. 2016 – Aug. 2019

An audio game, video game, and radio drama with a focus on accessibility, story, dialogue, and puzzles.

- Developed an architecture in Unity consisting of 91 custom C# scripts and several external tools.
- Prioritized user accessibility, making the game fully playable as audio-only, video-only, or both.
- Enabled performance requirements to be scaled to each player's hardware, targeting 60 frames per second.
- Produced and managed more than 1,000 audio assets, ensuring synchronization with gameplay.

Project Lead: HEARtREAD Jun. 2015 – Feb. 2016

An audio-only adventure through a lightless world.

Recipient of the 2016 Figgie Award for Accessibility and Inclusion (Digital Showcase) at the Boston Festival of Indie Games.

- Managed a team of five contributors, including voice actors, musicians, and an illustrator.
- Recorded, produced, and integrated sound effects to sculpt a complex audio-only world.

## SKILLS

---

C, C++, C#, Java, OpenGL, Git, PlasticSCM, Qt, Eclipse, Unity, Maya, Blender, Reaper, FMOD, Adobe Creative Cloud