

# Brendan Ward

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## Education

### Northwestern University, Evanston, Illinois

McCormick School of Engineering and Applied Science

GPA: 3.14

#### Significant Coursework

Design/Thinking/Communication 1&2  
3D Computer Animation

June 2021 (anticipated)

B.S. Computer Science  
Media Arts & Game Design Certificate

Game Design Studio  
Data Structures and Data Management

## Experience

### Independent Tools Programming & Character Art

Summer 2020

#### Technical projects explored during COVID

- Collaborated with indie artists to create a MAXScript that automates their workflow for mirroring skins
- Developed a Blender add-on which recreates the unique material inputs of Final Fantasy XIV, creating a more accurate preview for artists to work with
  - Implemented i/o for material input binary data, which is compatible with engine tools
  - Reviewed code from open source modding projects to create compatible tools
- Created custom character models, becoming familiar with processes of sculpting, normal map baking, material design, and texture painting in 3ds Max, Blender, and Substance Painter

### Data Management Tools Intern

Summer 2019

#### RWTH Aachen, Aachen, Germany

- Integrated with existing Robot Operating System setup to continue work on a seven-year project
- Implemented PySide interface for initiating and evaluating data recording across four networked robots, for integration into future modular testing software suites
- Designed future-proof sensor data storage procedures, enabling future cooperation between mechanical and computer science departments on data analysis for up to a decade
- Collaborated in an international workspace, adjusting to various levels of language proficiency and cultural familiarity for cooperation on a team project

### Media and Design Studio

Summer 2017– March 2020

#### Northwestern Weinberg College of Arts and Sciences, Evanston, Illinois

- Restored outmoded digital archives for Picpus, Walled Garden of Memory in order to enable access on modern machines for teaching and research
  - Updated image details for IIIF implementation, creating an automated script to generate manifests from SQL data linked across multiple tables
  - Customized Omeka-S themes and plugins, using the Omeka PHP API and Omeka server events to streamline the user experience and add intelligence to the webpage
- Upgraded existing python scripts for syncing data between university registry and WebCheckout user/patron databases, streamlining the process to run automatically via cron with minimal impact

## Activities

### Northwestern University Athletic Bands

August 2017 – present

### Phi Mu Alpha Sinfonia Fraternity, Iota Chapter

January 2018 – present

- Executive Committee, Warden: managed personnel, properties, and venues for events

### Boy Scouts of America

February 2011 – May 2017

- Eagle Scout: organized a large volunteer service project and studied life skills

## Skills

Computer – C, C#, C++, Unity, Python, 3ds Max, Blender, Maya, MAXScript, WebGL, pgSQL, Unix-based OS, git  
Languages – German (intermediate)