BT Ward

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LinkedIn

Skills

- *Programming Languages:* Python, C, C++, x64 Assembly, Maxscript, MEL
- *Programming Concepts:* Real-time 3D Games Development, Communication, Legacy Codebases
- *Key Software:* P4, Git, 3D DCC (Maya, 3ds Max), Visual Studio, JSON, Qt UI, Direct3D

Experience

Intern, **June 2024 – Present**
BitSpace, Chicago, Illinois

- Introduced students ages 9-14 to new technology and tools from woodshop to digital art
- Took ownership of decision-making processes to enable students in their own unique projects
- Led work on a deadline, ensuring students met regular milestones across a one week sprint

Independent Programming, **2020 – Present**
Self-employed, Chicago, Illinois

- Created a full-stack web news search site consisting of a Java ETL tool hosted on Amazon EC2, a Java REST API app using Amazon Elastic Beanstalk, and a React.js front end also served via S3
- Collaborated with indie artists on a MAXScript that automates their skin-mirroring workflow
- Developed a Blender add-on with Python which recreates the unique material inputs of a popular game, creating a more accurate preview for artists using a custom node-based shader

Maker Space and Media Center Aide, **December 2023 – June 2024**
Highland Park High School, Highland Park, Illinois

- Guided students (grades 9-12) and faculty through creative technology projects with maker space machines and materials, with special focus in onboarding new users
- Repaired, and maintained maker space equipment, archiving manuals and documentation
- Created items for 3D printing, laser cutting, stickers, and signage using Blender and Illustrator
- Managed and revitalized digital equipment checkout procedures for film equipment, improving workflows to push towards a paperless system
- Filmed and edited selects from school assemblies and other events for archival and promotion

Technical Artist, **January 2022 – January 2023**
Electronic Arts (EA Create Animation), Orlando, Florida (Remote)
Titles: *EA SPORTS PGA TOUR* (2023), *Dragon Age: The Veilguard* (TBA)

- Interfaced with animators and producers in order to ameliorate technological barriers and ensure smooth operations
- Resumed development on an in-house Maya animation picker tool in Python with a focus on customization for non-humanoid rigs
    - Refactored save system and file format to add custom packed background images with backwards compatibility

  - Solved longstanding bug in application control causing a rare crash in change reversion
  - Implemented feedback from animators on accessibility and UX
- Authored and iterated on a Python script for visibility shortcuts in Maya based on the needs of an animator and advice from team members
- Automated Python Maya animation export scripts for efficient processing and baking in bulk

Data Engineering Intern, **June 2019 – September 2019**

RWTH Aachen, Aachen, Germany

- Implemented Pyside interface in Robot Operating System for initiating and evaluating data recording across four networked robots, for integration into future modular testing software
- 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 Programmer, **June 2017 – March 2020**

Northwestern University Media and Design Studio, 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 python script to generate manifests from PostgreSQL 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
- Performed upkeep tasks on the department's three computer lab facilities including creating wallpapers for a consistent visual experience and maintaining an existing PERL script to keep each machine's appearance configured correctly

Education

Bachelor's of Science in Computer Science **June 2021**

Northwestern University McCormick School of Engineering and Applied Science

- Significant Coursework:
  - *Game Design and Development*
  - *3d Computer Graphics*
  - *Digital Art and Animation*
  - *Embedded Systems*

Media Arts & Game Design Certificate **June 2021**

Northwestern University School of Communication