Noah Lovelace

563-380-9255 | ndlovelace13@gmail.com | <u>linkedin.com/in/noah-lovelace/</u> | <u>ndlovelace13.github.io</u>

EDUCATION

Barrett, the Honors College at Arizona State University Cumulative GPA 4.0	Tempe, AZ
Bachelor of Computer Science	May 2025
Computer Gaming Certificate	May 2025
Study Abroad: Visualization and Simulation Waseda University, Tokyo, Japan	May 2023
Barrett in Iceland – Environmental Humanities Reykjavik, Iceland	May 2022
Skills: C/C++, C#, Unity, Unreal, Python, Java, JavaScript, HTML/CSS, Bootstrap, Wwise, Git, PHP,	,
Laravel, Docker, Unix/Linux, AWS Services, SQL/SQLite	

PROFESSIONAL EXPERIENCE

Milemaker, Powered by Rand McNally | Chicago, Illinois

June 2023 – August 2023

Software Engineering Intern

- Created sample programs for customer use and unit tests in 3 languages using company API endpoints
- Developed 2 full-stack web applications for product licensing using Docker Containers, SQL, and PHP
- Adhered to principles of Agile development and communicated with fellow software engineers

AssuredPartners | Decorah, Iowa

May 2022 – August 2022

IT Specialist

- Worked with over 15 staff members to answer questions and alleviate tech-related issues
- Organized and outmoded old technology for proper dispersion and disposal
- Assisted in the testing and implementation of new real estate systems and devices

PROFESSIONAL DEVELOPMENT - More Information on Back

No Rush Games April 2024 – Present

Solo Developer

- Released and published 9 content updates to 2D action rogue-lite Flower Crown Chaos on itch.io
- Cataloged all development via 140+ daily development logs under the handle <u>@norush games</u> on Instagram and full patch notes on itch.io following each release
- Formulated and created Election Occult within 48 hour window for the Ludum Dare 55 Game Jam

Gaming Certificate August 2022 - Present

Programmer, Gameplay and Level Designer

- Collaborated with group members of various skillsets to create games using Gamemaker & Unity
- Programmed a functional 3D game engine from scratch using Microsoft XNA Framework
- Implemented multiplayer systems with a group of 5 for co-op survival horror project My Iron Skin

Sailing at ASU August 2021 – Present

Web Designer, Treasurer

- Employed HTML, CSS, Javascript, and Bootstrap to construct an easily modifiable website for the team
- Transitioned all monetary transactions to use a Square website for more streamlined budget tracking
- Managed all funding and travel, organized fundraisers and collected various club fees for team of 30+

HONORS & ACCOMPLISHMENTS

Barrett, the Honors College StudentAugust 2021 – May 2025National Merit FinalistFebruary 2021Norman C. Bradish Scholarship RecipientAugust 2021 – May 2025Pacific Coast Sailing All-Conference CrewApril 2023 & April 2024

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NO RUSH GAMES

Flower Crown Chaos

May 2024 - Present

Unity 2D

- Action rogue-lite with an emphasis on creative expression through the creation of lethal flower crowns
- Crown creation system allows the player to combine 10+ unique flowers to create 2,000+ crown permutations the name and effects of each crown are algorithmically applied
- Designed three scaling enemies and one boss for the player to contend with
- Upgrades and unlocks can be purchased and tracked through different menus between gameplay sessions
- Player data is automatically saved using Json files and restored between play sessions
- All systems are designed with flexibility, allowing for the easy addition of new content and parity with player save data created during prior releases
- Iterative design process allows playtesting through itch.io and feedback integration in future versions
- Utilized Large Language Models such as ChatGPT to expediently answer programming questions

Thesis Project

August 2024 - Present

Unity 3D - Mobile

- Museum curation game, allowing players to complete study tasks to earn rewards to customize and upgrade their museum's offerings
- Flexible game framework for flashcard study, utilizing spaced repetition systems and extrinsic rewards to build intrinsic study habits for any topic, including languages, medical terms, etc.
- Includes a parser that transforms apkg (Anki Package) files into usable game objects and progression systems
- Idle game systems encourage users to come back each day to claim rewards and fulfill their study requirements
- Museum data can be published to a server, allowing social users to check on each other's museums

Project Tether

September 2024 - Present

Unreal Engine

- Planetary exploration roguelike with an emphasis on traversal and procedural generation
- Algorithmic generation of planets and solar systems will allow each playthrough to be unique
- A variety of movement items can be used in tandem to gain momentum and connect tethers to various hubs scattered throughout each planet and solar system
- Will use derivation techniques to identify local minima and maxima for the location of places of interest

OTHER PROJECTS

Computer Science Capstone

August 2024 - Present

Unreal Engine – Mobile AR

- Virtual tour guide that accesses OpenAI's Large Language Model API and location data to inform users about real-world locations and landmarks in real time
- Text-to-speech and speech-to-text will allow users to have a conversation with this knowledgeable NPC
- Augmented Reality technology will allow users to see the virtual guide while exploring locations in person
- Exercised Scrum philosophy in a group of 5, met with sponsors bi-weekly and documented sprint progress via use of a Taiga board

Full-Stack Licensing Web Portal

July 2023 – August 2023

Laravel PHP Framework

- Transitioned a locally hosted SQL database and PHP application to a company-wide tool hosted within a Docker container using Amazon Web Services and SQLite
- Application handles user permissions and login, inaccessible to users outside of Milemaker
- Allows for addition, deletion, editing, and searching of customer licenses to Milemaker services