

# Natalie Bombardieri

## Game Developer

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Portfolio: [gnatbomb.github.io/](https://gnatbomb.github.io/)

GitHub: [github.com/gnatbomb](https://github.com/gnatbomb)

## EDUCATION

### BSC - COMPUTING SCIENCE WITH SPECIALIZATION

University of Alberta | 2022

3.7 GPA

## COURSES

### Software Development

Project Management

Object Oriented Programming

Algorithm Design & Analysis

Linear Algebra / 3D Math

Program Analysis

### Game Development

Pathfinding & Games AI

Game Design Frameworks

Procedural Content Generation

Level Design

User Testing

## SKILLS

### TOOLS

C++ • C# • Python • Java • Git

Godot Game Engine • Unity

Google & Microsoft Suite • Jira

Confluence • Trello • FL Studio

### OTHER SKILLS

#### Practices

Agile • User Testing • Prototyping

#### Technical Communication

Public Speaking • Technical Writing

#### Collaborative Communication

Conflict Resolution & De-escalation

## INTERESTS

Gameplay Design • Level Design

Systems and Tools • Sound Design

Writing / Narrative • User Testing

## PROJECTS

### KLEPTO-CHRONIA | PRODUCER, AUDIO | (01/2022 - 04/2022)

- Winner of the CMPUT 250 Game of the Year award.
- Led a multidisciplinary team of 6 through a complete development cycle.
- Diligently tracked development progress using Trello to ensure that deadlines were met with all commitments accounted for.
- Composed an original soundtrack, designed gameplay and puzzles, coordinated playtesting, and assisted with programming and writing.

### ADAPTOSS | PROGRAMMER | (09/2021 - 12/2021)

- Champion of the CMPUT 350 StarCraft 2 bot tournament.
- Designed and programmed a robust computer StarCraft 2 AI using Blizzard's existing SC2 API.

### ODD SOCKS | PROGRAMMER, AUDIO, UI | (01/2022)

- Worked with a team of game developers to create a video game in 48 hours.
- Wrote soundtrack and generated sound effects.
- Designed an audio controller in Godot for efficiently handling audio.

## EXPERIENCE

### RESEARCH ASSISTANT University of Alberta | 05/2022 - 09/2022

- Published a research paper at AIIDE's EXAG workshop.
- Improved upon state of the art uses of neural networks for predicting emotionally engaging game design patterns in game logs and level structure.

### SOFTWARE ENGINEERING COOP

General Dynamics - Mission Systems Canada | 09/2020 - 09/2021

- Designed, produced, and reviewed software on a team of over 25 people.
- Translated design pitches into actionable technical requirements.
- Developed features which closely follow design documents.
- Learned new programming languages on the job.

### RESEARCH ASSISTANT University of Alberta | 05/2020 - 09/2020

- Designed and implemented a system for optimally selecting sets of anti-malware tools in order to balance computing costs and security.
- Delivered concise progress updates to supervisors in weekly meetings.
- Rapidly iterated research pursuits based on findings.

## PUBLICATIONS

- [1] N. Bombardieri and M. Guzdial. Improving deep localized level analysis: How game logs can help. 2022.
- [2] R. MacQueen, N. Bombardieri, J. R. Wright, and K. Ali. Game theoretic malware detection. *arXiv preprint arXiv:2012.00817*, 2020.