

# Andrej Erdelský

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## ABOUT ME

As a passionate game developer and computer scientist, specializing in gameplay programming and game design, I strive to combine technical expertise with innovative design to bring immersive digital experiences to life.

My practical experiences in academia, personal projects, and working on ongoing online games have helped me nurture a diverse yet robust skill set, ready for any development environment.

Born in Slovakia, I have spent most of my life studying abroad across Europe. I have lived in France, the Netherlands, and now Sweden for considerable amounts of time, which allowed me to strengthen my ability to communicate with diverse people, work effectively in a group setting, and feel at home anywhere in the world.

My website portfolio showcases all my work and projects.

#### WORK EXPERIENCE

■ DCGO TCG SIMULATOR PROJECT TEAM – UNITED STATES

GAMEPLAY PROGRAMMER – 22/05/2024 – CURRENT

Output

Description:

Output

Description:

I am responsible for **implementing gameplay systems** and individual card **mechanics** in a **Unity-based live service trading card game simulator**, which boasts thousands of active players, dedicated testers, and frequent build releases. I work on this project remotely, and my responsibilities include using **C#** to implement new cards, their unique card effects, all gameplay systems surrounding them, and **programming new game mechanics** never seen before in the game. Additionally, I fix bugs in older problematic cards to maintain the quality of the product and satisfy our players. It is a nonprofit project that I am passionate about.

■ FUNROCK AND PREY STUDIOS – STOCKHOLM, SWEDEN
REMOTE THESIS INTERNSHIP – 20/01/2025 – 05/06/2025

For my **master's thesis**, I have collaborated with **FunRock & Prey Studios** to help them research how sandbox game mechanics can be designed to foster emergent, community-driven cooperative behavior among players, particularly through the organic formation of role hierarchies. My academic research and findings were supported by the creation of a **large-scale multiplayer cooperative sandbox survival game** that was developed with **Unreal Engine** and that is now published and playable through **Fortnite**.

☐ CHALMERS UNIVERSITY OF TECHNOLOGY – GOTHENBURG, SWEDEN

UNIVERSITY TEACHING ASSISTANT – 20/01/2025 – 23/03/2025

Teaching assistant role for the course **Design and Construction of Digital Games** at the Chalmers University of Technology. My responsibilities included **supervising student groups** and guiding them through the **process of designing and implementing digital games**. In this role, I offered help in the form of **technical support in Unity** and through design insights into how to **create satisfying gameplay loops and mechanics**.

### SKILLS

# **Software Engineering**

Java | Git | C# | C++ | Python | JavaScript | Scala | OpenGL | NumPy | Haskell | PostgreSQL | Verse | Vue.js

# **Game Development**

Unity | Godot | Unreal Engine 5 | UEFN

VHDL | Autodesk Fusion 360 | Bambu Studio | Affinity Designer

#### EDUCATION AND TRAINING

28/08/2023 - 09/06/2025 Gothenburg, Sweden

## **GAME DESIGN AND TECHNOLOGY MSC** University of Gothenburg

- Game Development Project
- Advanced Computer Graphics
- Game Engine Architecture
- Gameplay Design
- Current Trends in Gaming
- Agile Development Processes
- Advanced Requirements Engineering

Website https://www.gu.se/en/study-gothenburg/game-design-technology-masters-programme-n2gdt

Field of study Software and applications development and analysis | Level in EQF EQF level 7 |

National classification NLQF level 7 | Type of credits ECTS | Number of credits 120 |

Thesis Design of Engaging Community-Centered Cooperative Multiplayer Sandbox Games with Wide Demographic Appeal

03/09/2019 - 16/02/2023 Delft, Netherlands

# **COMPUTER SCIENCE AND ENGINEERING BSC** Delft University of Technology

- Algorithms and Data Structures
- · Algorithm Design
- Computer Graphics
- Big Data Processing
- Collaborative Artificial Intelligence
- Computer Networks
- Object-Oriented Programming
- Functional Programming
- Web and Database Technology
- Software Quality and Testing
- Machine Learning
- Software Engineering Methods
- Software Project

**Website** https://www.tudelft.nl/en/onderwijs/opleidingen/bachelors/computer-science-and-engineering/bachelor-of-computer-science-and-engineering

Field of study Software and applications development and analysis | Final grade 7.55/10 | Level in EQF EQF level 6 |

National classification NLQF level 6 | Type of credits ECTS | Number of credits 180 |

Thesis An empirical study of the effects of unconfoundedness on the performance of Propensity Score Matching

## LANGUAGE SKILLS

Mother tongue(s): **SLOVAK** 

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production Spoken interaction		
ENGLISH	C2	C2	C2	C2	C2
FRENCH	C2	C2	C1	C1	C1
CZECH	C2	C2	C1	C1	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## PROJECTS

**CURRENT** 

My portfolio website contains all of my projects, including games, software, and research

If you wish to know my design process and the way I work in more detail, the Process section of my master's thesis exemplifies it perfectly.

Link <a href="https://erdandrej.github.io/">https://erdandrej.github.io/</a>

#### RECOMMENDATIONS

Joakim Höglund Head of Studio at FunRock and Prey Studios

Andrej completed his thesis with us at FunRock & Prey Studios, and I had the pleasure of working closely with him for several months during this project. Collaborating with Andrej was both easy and productive. He communicates clearly, grasps new concepts quickly, and approaches his work with a high level of professionalism.

He demonstrated a strong understanding of game design, not just in theory but in its practical, collaborative application. Andrej was diligent, self-motivated, and consistently met challenges with determination and a positive attitude. He remained solution-oriented throughout, always focused on finding the best way forward.

Andrej was humble, open to feedback, and fully committed to the goals of the project. He brought both competence and character to the work, and I would gladly recommend him for future opportunities in the game industry or wherever his skills and personality could be useful.

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**Natasha Bianca Mangan** Technical Lecturer at the Department of Computer Science and Engineering, Chalmers University

My interaction with Andrej began through his interest in researching, "In what ways does the ever-increasing power creep in the Digimon TCG franchise affect the psychology of its players?". This research project presented a thorough analysis of the Digimon Card Game and how mechanics interact with or influence human psychology. It showed the advanced analysis skills needed to examine gameplay and demonstrated an understanding of gameplay elements and how they work. The paper was well received at the Second Conference for the Introduction to Game Research course and earned him the top marks in the course.

Andrej then continued his passion within the field of card games by building a complete prototype of an online digital trading card game, simulating all the mechanisms needed for the complex system of the Digimon card game. Andrej worked his way skillfully into building complex features to model the online multiplayer system and the gameplay systems required. He progressed iteratively to build the game, improving the features along the way to deliver a complete game experience with automated gameplay systems and the physical maintenance present in the card game. From the beginning, Andrej was focused on what he wanted to work with during the project and was well organized in planning his work. Andrej maintained clear communication of his progress on the project with me as his supervisor and with his teammate.

Andrej has continuously presented amazing work in utilizing gameplay mechanisms to build both board games and video games. He will be an asset to any team he joins with his technical and design skills.

To conclude, Andrej has great technical and interpersonal skills, conducting himself in a very professional manner through his work and engagement with other members of his teams. He creates a positive impression on the people around him, and I am proud to have had the chance to supervise his work. I present this letter towards my recommendation without reservation.

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