

# CATERINA(CELESTE) ESPOSITO

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## SKILLS SUMMARY

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<b>Programming Languages</b>	Java, Python, JavaScript, SQL
<b>AI &amp; Algorithms</b>	Minimax Algorithm, Game Tree Search, Evaluation Functions, Heuristic Search, Deterministic Decision-Making, Explainable AI
<b>Software &amp; Tools</b>	Git, Spring Boot, JUnit, REST APIs, Node, MongoDB, Tableau, Apache Hadoop
<b>Web &amp; UI</b>	React, Bootstrap, HTML, CSS, Figma

## PROFESSIONAL EXPERIENCE

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**Front End Developer/UI UX Designer** October 2023 - Present  
**Manzeera Solutions** *Chevy Chase, MD (Remote)*

- Designed 100+ intuitive and visually appealing user interfaces for the company's websites and applications, resulting in a 25% increase in user satisfaction scores.
- Led the visual design process for digital screens, from conceptualization to final implementation, ensuring seamless alignment with brand standards and user needs.
- Collaborated closely with development teams to translate visual concepts into functional website designs, utilizing HTML, CSS, and JavaScript, leading to a 15% reduction in development time.
- Continuously improved the user interface by incorporating user feedback and emerging design trends, driving a 20% increase in website engagement and usability.

**Junior Marketing Specialist** June 2022 - August 2022  
**TRP Research** *Dublin, Ireland*

- Directed comprehensive research for the company's studies, expertly utilizing a diverse range of research methods and techniques, resulting in a 20 % increase in the quality and depth of insights gathered.
- Demonstrated exceptional interpersonal skills by conducting in-person interactions with research participants, ensuring a seamless and engaging experience that contributed to a 15% higher completion rate for the studies.

**Web Developer** September 2021 - April 2022  
**Railway Union Club** *Dublin, Ireland*

- Developed a new website for the company using HTML, CSS, JavaScript, and cPanel.
- Achieved 30% faster page load speed, improving user satisfaction.
- Translated Figma designs into HTML/CSS, ensuring pixel-perfect UI implementation.

## EDUCATION

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**MSc Computer Science**, University of St Andrews *St Andrews, UK 2022 - 2023*  
Dissertation : Problem Solving in the Game of Go Repo, Report

- Designed and implemented a Java-based AI system for the game of Go using the Minimax algorithm and custom heuristic evaluation functions to analyze game states and recommend optimal moves. Achieved 78% move accuracy and increased player win rates by 35% through iterative algorithm refinement.

**Post-Baccalaureate Diploma in Computing**, Griffith College *Dublin, Ireland 2020 - 2021*

- Intensive post-baccalaureate program focused on software development, programming fundamentals, and computing systems
- Awarded First-Class Honours

**Bachelor of Science**, American University, Kogod School of Business *Washington D.C 2014 - 2018*

- Business Administration Degree with a Focus on Information Technology
- Supported myself through college with hands-on work experience, including roles at the campus store and an ice cream shop, demonstrating strong time management, customer service, and entrepreneurial skills.

## LATEST PROJECTS

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- **Murder at Belmont Manor** — Utilized a combination of random number generation and SAT formulae to create 50+ unique narratives with consistent rules and themes. Reduced average playtime from 30 minutes to 15 minutes through iterative playtesting and design refinement.
- **AI-Based Go Game Helper (Master's Dissertation)** — Designed and implemented a Java-based AI system to assist beginner Go players by analyzing board states and recommending optimal stone placements. Applied the Minimax algorithm with a custom evaluation function to prioritize stone capturing and opponent liberty reduction. Built an interactive console-based application with move suggestions, capture assistance, and rule enforcement, emphasizing explainable AI and player learning.