

Dept. of Computer Science and Information Systems University of Limerick Limerick. Ireland.

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17th January 2023

**REFERENCE:** Bryan Carty

To whom it may concern,

I have known Bryan Carty from August 2022 to the present day through two channels. The first is in my capacity as lecturer for the two final year undergraduate modules taken by Bryan, namely CS4125 Systems Analysis and Design, and CS4287 Neural Computing. The second is through my role as Bryan's academic advisor for his Final Year Project (FYP) which constitutes a significant component of the final undergraduate year. For the FYP, Bryan is exploring recent developments in the field of Deep Reinforcement Learning (DRL) applied to the Atari Breakout video game.

Bryan is a highly intelligent and motivated student who consistently demonstrates a deep understanding of and engagement with the subject matter. His contribution to team-based programming projects in the two modules listed above have been outstanding. His competency in independent learning and research in his FYP is likewise excellent. He is punctual, trustworthy, and always meets deadlines. He is a pleasure to work with and is held in high esteem by his peers.

I have no hesitation in recommending Bryan for the year-long internship given the value that he will add to your organisation in that role.

Yours sincerely		
J. J. Collin Signature:	2023-Jan-17 Date:	
John James Collins Computer Science Course		