

To Whom It May Concern,

I am happy to provide my strong recommendation for Edward Kim for an internship role in Machine Learning and Artificial Intelligence within the Defense and Intelligence community.

My name is Alex Newgent, a Machine Learning Engineer at Heron Systems Inc., a Shield AI company, and also the Intern Coordinator for the Intern Team during the summer of 2021. As Intern Coordinator, I worked closely with each of our interns to ensure that they had the resources they needed to complete their work. Edward Kim was one of the interns whom I had the pleasure of working with.

Over the course of the summer of 2021, Edward demonstrated a clear aptitude for software engineering and Python programming. He worked primarily with our machine learning and simulation teams to implement the software necessary to perform multi-agent training on the ACE program. This program involved the use of reinforcement learning techniques to train agents to compete in 2-on-2 aerial dogfights. Due to the ever-evolving nature of the field of reinforcement learning, Edward had to write software in such a way that it could work with any RL algorithm and any simulator. Edward performed his task diligently, taking input and advice from a multitude of people from many different teams, and synthesized it all into the architecture that we currently use today.

Edward's ability to grasp new skills and concepts quickly became apparent during his work on MineRL. MineRL is a competition hosted by Carnegie Mellon University each year with the intention of solving difficulties within the field of reinforcement learning using Minecraft. Towards the beginning of the summer, Edward expressed his interest in competing in this competition and helped organize the intern team to compete. Through his own personal study, Edward was able to begin training an AI to collect wood in Minecraft completely autonomously. Edward then took the knowledge gained from MineRL and applied it to his work with multi-agent training.

Edward's ability to grasp new concepts in machine learning, as well as his prominent skill in software engineering, made him an invaluable member of our team at Heron Systems. It is my strong belief that Edward will continue on to do amazing things as he gains more experience. If you have any further questions regarding Edward's qualifications or accomplishments, please feel free to email me at [alexander.newgent@shield.ai](mailto:alexander.newgent@shield.ai).

Best,  
Alex Newgent

A handwritten signature in black ink that reads "Alex Newgent". The signature is written in a cursive, flowing style.

Machine Learning Engineer  
Heron Systems Inc., a Shield AI Company  
[alexander.newgent@shield.ai](mailto:alexander.newgent@shield.ai)