UNIVERSITY of WASHINGTON | BOTHELL
SCHOOL OF SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

Munehiro Fukuda
Professor and Chair of Computing and Software Systems

May 4, 2016

To: Whom It May Concern
Re: Recommendation for Michael O'Keefe

Dear Hiring Representatives,

I am very glad to write this letter of recommendation for Mr. Michael O'keefe. He is pursuing BS in Computer Science and Software Engineering at Division of Computing and Software Systems (CSS). Since June 2015, he has been also studying as an undergraduate research assistant at CSS Distributed Systems Laboratory.

Michael's research focuses on parallel file I/O for multi-agent systems. Multi-agent systems view their computation as an emergent collective group behavior of many agents, each running as an autonomous object such as a program instance, a thread, or a job. We are applying this computation model to not only general simulations, (e.g. traffic simulation) but also structured data analysis, (e.g. climate change analysis). Michael analyzed the execution bottleneck of our agent-based climate change analysis (named UWCA: UW Climate Analysis) while we parallelized it for faster execution. He looked at the code in collaboration with the UWCA developer, ran several test programs to see what portion of the code incurs the largest overheads, and designed a parallel file I/O feature for multi-agent systems. He is currently working on its implementation that reads a huge amount of climate data in the NetCDF format at each computing node in parallel, keeps data in memory buffers, and allows individual agents or their work spaces to read different data from the memory simultaneously. He is planning to complete his implementation in time for our conference paper submission to IEEE Computational Science and Engineering 2016.

Observing Michael's year-round research activity, I can assure his excellent communication ability to collaborate with other colleagues on the same project, his commitment to focus on and complete his work responsibility in time, and his self-motivation to apply for an intramural undergraduate research scholarship last November and for this year's UWB undergraduate research symposium. Through his parallel file I/O project, I believe that Michael has gained substantial understanding of operating system features.

Based on his activity at and contribution to our research laboratory, I expect that he will be able to successfully develop his career as a software development engineer.

If you have any questions, please feel free to ask me by email or phone.

Cordially,

Munehiro Fukuda

Box 358534 18115 Campus Way NE Bothell WA 98011-8246 425.352.3459 fax 425.352.5216 mfukuda@uw.edu