FLORIDA STATE UNIVERSITY

FAMU-FSU COLLEGE OF ENGINEERING

PARALLELIZING COMPLEXITY:

STRATEGIES FOR ACCELERATING AI ALGORITHMS AND SCIENTIFIC

SIMULATIONS IN HETEROGENEOUS COMPUTING ENVIRONMENTS

By

MIGARA YASASWIN AMARASINGHE

A Dissertation submitted to the
Department of Electrical and Computer Engineering
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

2024

Migara Yasaswin Amarasinghe defended this dissertation on July 03, 2024.
The members of the supervisory committee were:

Simon Y. Foo
Professor Directing Dissertation

Adrian Barbu
University Representative

Shonda Bernadin
Committee Member

Rodney Roberts
Committee Member

The Graduate School has verified and approved the above-named committee members, and certifies that the dissertation has been approved in accordance with university requirements.