THE UNIVERSITY OF ARIZONA
GRADUATE COLLEGE

As members of the Dissertation Committee, we certify that we have read the dissertation prepared by **Yuan-Lu Chen**, titled **Improving Neural Net Machine Translation Systems with Linguistic Information** and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy.

_____   Date: *25 May 2018*

Michael Hammond

_____   Date: *25 May 2018*

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_____   Date: *25 May 2018*

Sandiway Fong

Final approval and acceptance of this dissertation is contingent upon the candidate's submission of the final copies of the dissertation to the Graduate College.

I hereby certify that I have read this dissertation prepared under my direction and recommend that it be accepted as fulfilling the dissertation requirement.

_____   Date: *25 May 2018*

Dissertation Director: **Michael Hammond**