

McGill University
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October 26, 2021

Dear Professor Robillard,

Over the last three years, I have been a Ph.D. student in the Knowledge and Software Technology lab. During that time, I have had the privilege of working on software documentation and automated testing under the supervision of Prof. Guo and Prof. Si. Our research seeks to understand the relation between natural and programming language artifacts. In particular, we are developing tools to evaluate the reasoning capabilities of code-based neural language models.

In the next three years, I am planning to strengthen the connection between neural code completion and documentation synthesis by generating synthetic variants of open source code and documentation, and using those artifacts to probe the understanding of neural language models. We have early results to suggest that documentation synthesis can be a useful benchmark for measuring program comprehension in neural language models. I would be eager to share those results with you and to receive your feedback, given the opportunity.

At Prof. Guo's recommendation, I am writing you to ask if you would consider joining my supervisory committee. Given your deep background in software documentation, I concur that your input would be highly valuable and welcome your involvement, should you be interested. Please do not hesitate to let me know if I can provide any further details or clarification about my research goals.

I appreciate your consideration and look forward to your reply.

Sincerely,

A handwritten signature in black ink that reads "Breandan Considine". The script is fluid and cursive, with the first name and last name clearly distinguishable.

Breandan Considine