Logic and operator algebras

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- For the operator algebra part, there are plenty of local experts

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Study those problems about operator algebras that might be susceptible to logical attack. For example:

- Instead of studying the isomorphism type of a given algebra, see if any progress can be made by studying its theory.
- In terms of invariants for an algebra, can model theoretic information about things like types help at all?
- Does studying the abstract complexity of a problem give you insight into where to look for solutions of problems about operator algebras?

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- Last year's project led to a publishable research paper.

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- Some basic topology will come in handy.

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- Generically, you will learn how to tackle a research problem in mathematics - learn what you need to in one area to apply it in another, focus on the problem and don't get lost in the details, etc.
- Specifically, you will learn some very modern logic and how it interacts with other areas of mathematics.