# STA663 Statistical Computation Final Project

# Implementation of the Indian Buffet Process

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### Instructions 1

State the research paper you are using. Describe the concept of the algorithm and why it is interesting and/or useful. If appropriate, describe the mathematical basis of the algorithm. Some potential topics for the backgorund include:

- What problem does it address?
- What are known and possible applications of the algorithm?
- What are its advantages and disadvantages relative to other algorithms?
- How will you use it in your research?

## Code Structure and Simulated Data 2

- 3 Testing
- Optimization 4
- Remove Redundant Calculations 4.1
- 4.2 Cythonized Code
- 5 Comparative Analysis
- 5.1 Chinese Restaurant Process
- 5.2 Another Matlab Version Online
- 5.3 **Another Python Version Online**

#### Results 6

Table 1 shows a simple version of tables.

#### 7 Conclusion

Write your conclusion here

$\operatorname{cat}$
3.0000
7.0000
8.0000