An Evaluation of the Go Programming Language

Simon Salloum
s1347664

What, why and how?

- **What?** Comparing performance of OpenMP and Go
- **Why?** The rise of parallel computing
- **Why?** Go vs. libraries -> general purpose vs. specificity
- **How?** Set of benchmarks to run on clusters
  - 4 sets of benchmarks: sequential, micro, component, suite
  - Different algorithms and patterns

Workflow

- Github
- Focus on automation and incremental implementation
- Issue -> Implement on dev. branch -> Push -> Merge

Progress

- **Sequential:** implemented
- **Micro:** implemented
- **Component:** not yet started
- **Suite:** only needs translation to Go
- **Experiments:** not yet started

Data management

- Data visualizations in R
- No previous knowledge
- **Current status:** can generate graphs, need to figure out how to handle columns and rows to extract data

Next steps

- https://github.com/ss1891/go-parallel-benchmarks
- Github issue tracker to keep track
- No deadlines, different levels of urgency
- **Urgent:**
  - plot data correctly (example graph)
  - implement component benchmarks
  - run first set of experiments