Degree Project

Presentation #1

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- Advisor: Rodrigo Paredes (rapa)
- Thema: Incremental sorting for arrays with highly redundant classes
- Current Status: A paper, initial tests finished.

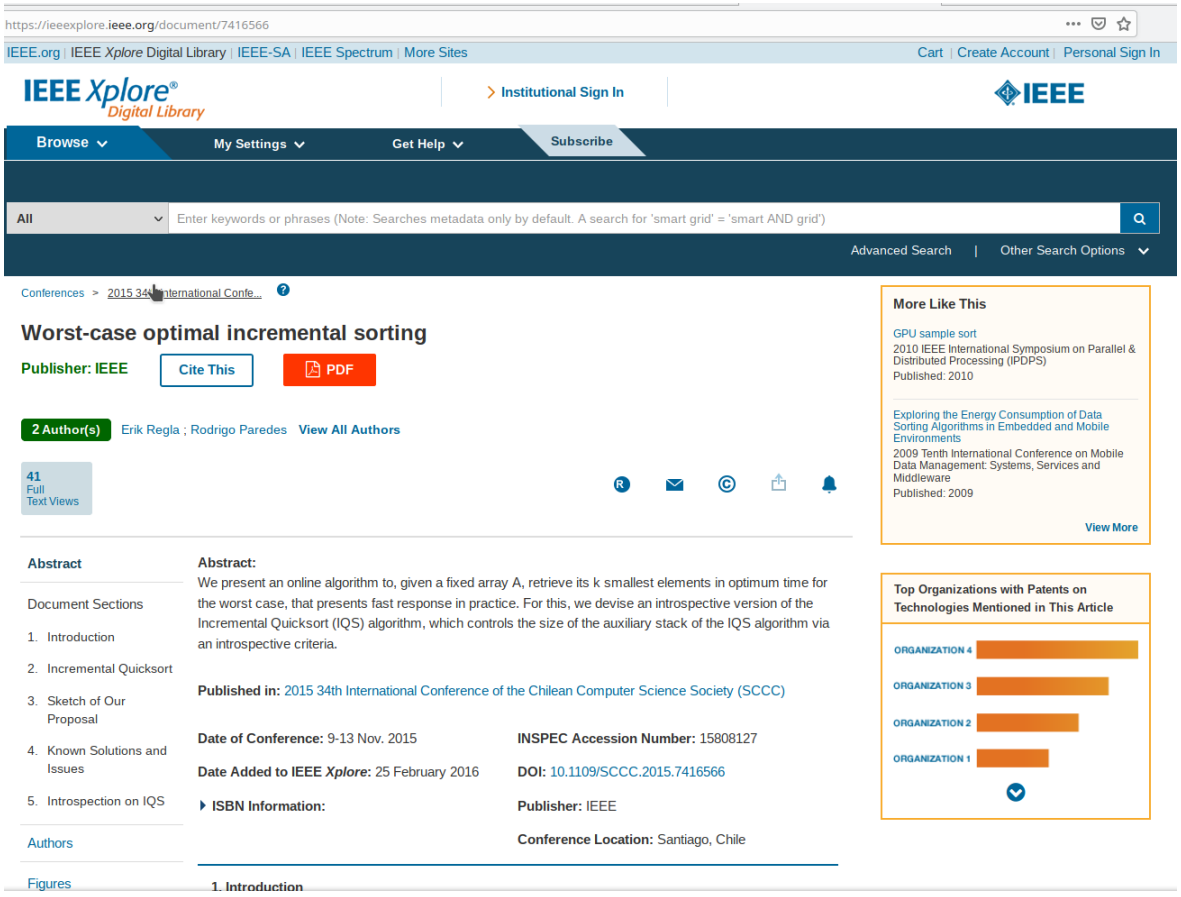

Figure: IIQS implmementation changes the partition method in order to guarantee a partition of linear time and at the same time guarantee a reduction on the search space. (10.1109/SCCC.2015.7416566).

Current scope is limited as an experimental algorithm design to extend (I)IQS usage for haplotype plot generation, which is an instance of the worst case for IQS but on a discrete space when $C << n$.

- Modification 1: Add incremental version of BFPRT algorithm
- Modification 2: Change rules for introspective step
- Modification 3: Bias the three-way-median returned index
- Modification 4: Store the three-way-median result on the stack

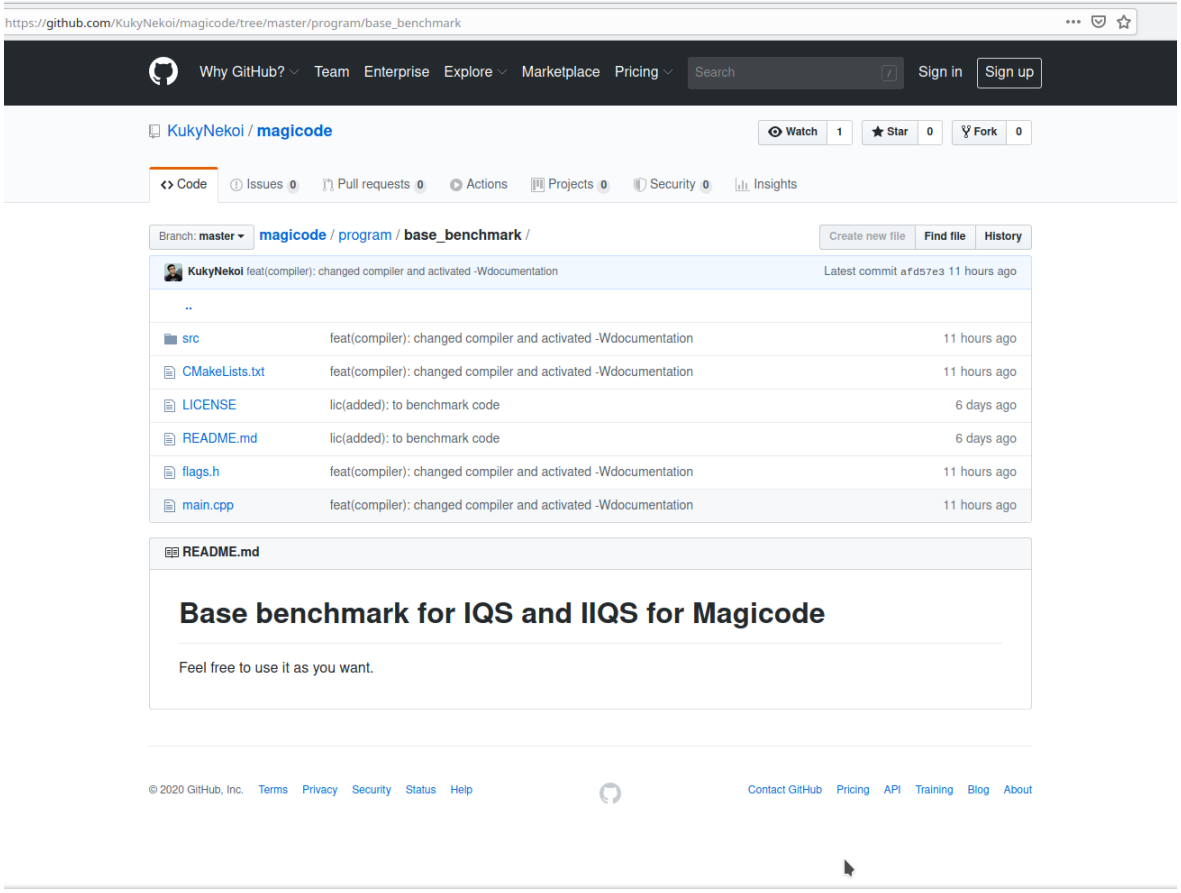

Figure: Implementation for the tests available under GNU GPL license at GitHub

- Scope: Experimental design, setup and experimentation
- Part of magicode, a personal research on FPGA implementation of hardware accelerators for similarity search (the original thema).
- Got someone interested on using this algorithm for solving haplotype plots

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