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I have studied and have been interested in computer architecture for a long time now,

Similar to dycton, I have worked on CMU SAFARI group's **VAMPIRE**, it's a real experiment based memory energy prediction tool written in C++ ([latest pre-release](#)). The tool takes a sequence of DRAM commands as input and estimates the energy it would consume on a real system. To do this tool has to perform calculations to estimate what effects multiple commands running in parallel have on the system. I wrote the major request handling logic including command reordering and energy estimation.

During my last year's summer internship, I extensively studied how memory systems (DRAMs and memory scheduler) works. This included studying in detail the DRAM's architecture and scheduling of commands.

For the past few months, I'm working on the same group's memory simulator, [RAMULATOR](#). Using ramulator I've tried to implement a few new memory scheduling algorithms and reproduced results from past papers.

Apart from that I've also worked on hobby projects including writing a toy OS and a 32-bit MIPS like processor.