MIPS assembly language

- MIPS: stands for "Microprocessor without Interlocked Pipeline Stages" (not relevant, basically just means that CPU uses simple execution model)
- Type of RISC (Reduced Instruction Set Computer) ISA (Instruction Set Architecture) - popular example of a RISC ISA is RISC V, open standard that began development in 2010 at UC Berkeley
- Will go through some sample MIPS programs to get an idea of how assembly language works

Assembly terminology

- Jump: set the program counter (PC) to a specific address
- Branch: jump if a condition is satisfied (e.g., $s0 = $s1)
- Word: convenient size of data for a computer, 32 bits (4 bytes) in the version of MIPS that we will be using
- Load/Store: read/write data to/from memory
- Immediate: a value specified in the actual assembly instructions, not taken from a register