|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| **ADD** | 0001 | | | | **DEST** | | | | **SRC1** | | | | 0 | 000 | | | **SRC2** | | | |
| **ADDI** | 0001 | | | | **DEST** | | | | **SRC1** | | | | 1 | **imm7** | | | | | | |
| **OR** | 0010 | | | | **DEST** | | | | **SRC1** | | | | 0 | 000 | | | **SRC2** | | | |
| **ORI** | 0010 | | | | **DEST** | | | | **SRC1** | | | | 1 | **imm7** | | | | | | |
| **NAND** | 0011 | | | | **DEST** | | | | **SRC1** | | | | 0 | 000 | | | **SRC2** | | | |
| **NANDI** | 0011 | | | | **DEST** | | | | **SRC1** | | | | 1 | **imm7** | | | | | | |
| **SUB** | 0100 | | | | **DEST** | | | | **SRC1** | | | | 0 | 000 | | | **SRC2** | | | |
| **SUBI** | 0100 | | | | **DEST** | | | | **SRC1** | | | | 1 | **imm7** | | | | | | |
| **SLL** | 0101 | | | | **DEST** | | | | **SRC1** | | | | 0 | 000 | | | **SRC2** | | | |
| **SLLI** | 0101 | | | | **DEST** | | | | **SRC1** | | | | 1 | **imm5** | | | | | | |
| **LD** | 0110 | | | | **DEST** | | | | **ADDR12** | | | | | | | | | | | |
| **ST** | 0111 | | | | **SRC** | | | | **ADDR12** | | | | | | | | | | | |
| **JUMP** | 1000 | | | | **ADDR16** | | | | | | | | | | | | | | | |
| **BEQ** | 1010 | | | | **OP1** | | | | **OP2** | | | | **ADDR8** | | | | | | | |
| **BLT** | 1100 | | | | **OP1** | | | | **OP2** | | | | **ADDR8** | | | | | | | |
| **BGT** | 1001 | | | | **OP1** | | | | **OP2** | | | | **ADDR8** | | | | | | | |
| **BLE** | 1110 | | | | **OP1** | | | | **OP2** | | | | **ADDR8** | | | | | | | |
| **BGE** | 1011 | | | | **OP1** | | | | **OP2** | | | | **ADDR8** | | | | | | | |
|  |  | n | z | p |  | | | | | | | | | | | | | | | |

**Instruction Set Arcthitecture**