Binary representation is the foundation of all computing, using only the numbers 0 and 1 to encode all data and instructions. This system aligns with the fundamental idea of transistors, which only exist in off and on states, 0 and 1 respectively. Converting decimal numbers to binary involves repeatedly dividing the number by two and recording the remainders in reverse order, which I have performed. The process is very tedious, but it helped me gain a greater understanding of how binary translation and representation work.