Computer Organization and Programming

Raymond Bian

January 9, 2024

Contents

Lecture 1: Introduction

1 Big Ideas

> **Definition 1.** Big Idea 1: All computers can compute the same kinds of things. We call this **turing-completeness**.

> **Definition 2.** Big Idea 2: **Abstraction** represents the layers that make the electorns work.

> **Definition 3.** Big Idea 3: **Binary numbers** are better than decimal for electronic computing.