

# Node.js and NPM

Jogesh K. Muppala



THE DEPARTMENT OF  
**COMPUTER SCIENCE & ENGINEERING**  
計算機科學及工程學系



香港科技大學  
THE HONG KONG UNIVERSITY OF  
SCIENCE AND TECHNOLOGY

# What is Node.js?

- JavaScript runtime built on Chrome V8 JavaScript Engine
- Uses an event-driven, non-blocking I/O model
  - Makes it lightweight and efficient

# Node Architecture

Node Core / Standard Library (JS)

Node Bindings (C++)

Chrome V8 (C++)

libuv (C)

# Node.js Use Cases

- Utilities written in JavaScript for web development:
  - Bower, Grunt, Gulp, Yeoman etc.
- Server-side Development
  - Web server, Business logic, Database access

# Node Package Manager

- Node package manager (NPM): manages ecosystem of node modules / packages
- A package contains:
  - JS files
  - package.json (manifest)

# Exercise: Setting up Node.js and NPM

- Complete the set up of Node.js and NPM on your machine
- Understand the basics of Node.js and NPM