陈昱宁 (YuNing Chen)

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Education

- **South China Normal University**   2021/09 – 2025/06
  Network Engineering

  ‣ The only undergraduate **Teaching Assistant** for Operating System Project Class (Fall 2023): Assisted in answering questions and improving the project documentation (adapted from MIT 6.S081 Lab).

Skills

- **Core Skills**
  ‣ **_Low-Level Programming:_** Possess comprehensive understanding of both hardware and software, capable of writing CPU-friendly, cache-efficiency code.
  ‣ **_Algorithms and Data Structures:_** Mastered the time and spatial complexity, skilled in writing efficient code.
  ‣ **_Functional Programming:_** Confident in working with common paradigms such as FP, OOP and Imperative Programming.
  ‣ **_Self Learning Ability:_** Proficient in Googling, asking and answering questions. Possess a fast learning pace.

- **Soft Skills:**
  ‣ Testing, Logging, Profiling, Debugging, Abstracting and Collaborating
  ‣ Experienced with Git/GitHub workflow (Rebase, Cherry-Pick, etc.) and Conventional Commit.
  ‣ Proficient in English (CET6 577), with extensive reading of English books, docs and blogs.
  ‣ Mastered Linux usage, configuration, and management. Skilled in container management with Docker.

- **Languages and Libraries (including but not limited to):**
  ‣ Languages: C/C++, TS/JS, Go, OCaml, Rust, Assembly...
  ‣ Databases: SQLite, PostgreSQL, MySQL, MongoDB...
  ‣ Libraries:
    – Golang: gorm, gin, zap...
    – C++: CMake, GoogleTest, GoogleBenchmark, nlohmann/json...

Projects

- Telegram Bot for Memos   112 ⭐
  ‣ A Telegram Bot for the memos project, widely used, and also contributed to the memos project itself.

- Search Obsidian in Google   30 ⭐
  ‣ A combination of an Obsidian plugin and browser extension used to search Obsidian notes on Google.

- SysY Compiler
  ‣ A SysY compiler written in Rust that compiles SysY language to RISC-V assembly, passing all public test cases provided by Peking University.

- MoonBit Standard Library
  ‣ The standard library for the MoonBit programming language, contributed various data structures and algorithms.

- More Contributions on GitHub...

- Numerous course projects that aren't suitable for public access on GitHub, including but not limited to:
  ‣ CMU 15-213 CS:APP Labs
  ‣ CMU 15-445 Database Labs (Bustub)
  ‣ MIT 6.S081 OS Labs (XV6)
  ‣ Stanford CS144 Networking Labs (TCP Implementation)

Experieces

- **MoonBit Programming Language Developer Intern**   2024/05 – Now
  @ International Digital Economy Academy
  Responsible for the development of the MoonBit programming language.
  - Improved the standard library for MoonBit, including high-quality random number generation, hash optimization, Iter implementation, Unicode Convertion, Json Parsing, etc.
  - Enhanced the MoonBit compiler with features such as ConstFolding, BitwiseOp, IterRangeOp, and Intrinsic additions and fixes.

- **Turing Class, SCNU**   2021/09 – Now
  A self-motivated, unofficial discussion group covering topics like Mathematics (MIT 18.06, 18.01, 18.02), Algorithms and Data Structures (CLRS), Operating Systems (CSAPP, OSTEP), Theory of Computing (MIT 18.404), etc.

  - As an active member, organized multiple discussions and delivered several presentations.
  - Mentored freshmen in Linear Algebra, C programming, and CS 61A, enabled them ask high-quality questions.