Qian ChengLiang/Mick

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Proficient Software Engineer, with a keen interest in AIGC, possessing strong skills in algorithms

Awards & Achievements

- **Honorable Mention, Huawei Hackathon, Oct. 2021** Subject: Memory reuse-relation of Tensor

- **Honorable Mention, MIM/ICM, Feb. 2018**

- **Zhejiang University Second-class and Third-class Student Scholarship, 2018 & 2019 & 2020** Awarded to undergraduate students who have ranked in the top 10%/15% in previous semester

- **Outstanding Engineer Of The Year Award, 2021** Awarded by the head of the Hangzhou research Institute, to the outstanding engineer(among 1000+ engineers) for the designing and implementing a high-performance text-editor

Work Experience

- **Huawei Tech**   Hangzhou Research Institute
  Junior Engineer A   *July. 2020 - Aug. 2021*
  Junior Engineer B   *Aug. 2021 - May. 2023*
  Senior Engineer   *May. 2023 - Present*

  - **LLM-powered Agent**: An virtual agents-team with specialized abilities, playing different roles in SAP, collaborating together, aiming to create an independent code project. While doing research into popular LLM-powered Agent frameworks, became a contributor of **Auto-GPT**.
  - **Java-to-Scala Transpiler**: A Java-to-Scala transpiler written in Scala, aiming to translate legacy java code into usable Scala code. Pioneered the progress of the project. Based on JavaParser & Scalameta, it out-performs most of the j2s transpiler at the time.
  - **Slang**: A System-Verilog parser written in C++, which parses System-Verilog source code into valid in-memory Syntax Tree, while generating proper diagnostics. It also exploits advanced skills to boost performance, including CRTP. Hand-written filelist parser boost its performance 100+ times.
  - **VNext**: A cross-platform, blazing fast and lightweight IDE written in Rust. Built on a Rust GUI framework - Druid, which can be compiled into WASM, it have the same behavior under many platforms. Led and built a pure hand-written Rust Text-Editor. While providing abundant features supported by popular IDEs, including syntax-highlighting, code-folding, plugin support, it also runs with high responsiveness and low memory -consumption.
  - **Intelligent Programming**: Provide a better programming experience, with the help of fine-tuned models and proper prompt designs. Some interesting new features are achieved, including auto code-generation, code summarize, code translation, etc

Education

- **Zhejiang University (ZJU)**   Hangzhou
  Bachelor in Computer Science; Cumulative GPA: 3.85/4.00, Major GPA: 3.98/4.00   *Oct. 2016 – July. 2020*

Programming Skills

- **Languages**: Rust, C++, Java, Scala, Python

- **Technologies**: Druid, Flutter, JVM, Text Editor, Gradio, LLM-Agent

Relevant Coursework

- **Major coursework:** Calculus I-II, Matrix Theory, Computational Theory, Discrete Mathematics, Computer Network, Digital Integrated Circuit Design, Computer Architecture, Computer Organization and Design, Operating System, Compiler Theory, Software Engineering, Probability Theory, Database System, Basic and Advanced Data Structures and Algorithms

- **Minor coursework:** Communication skills towards IT, Artificial Intelligence, Software Engineering, B/S system Software Design, Java Application,E-commerce System Architecture

- **Online courses:** Coursera: Deep Learning Specialization, DeepLearning.AI: How Diffusion Models Work, Building Generative AI Applications with Gradio, LangChain for LLM Application Development, etc

Personal Interest

- **AIGC:** Focusing on recent AI products, understanding their use-cases and principles. Contributor of Auto-GPT

- **LeetCode:** LeetCode Contest Knight Badge, Rating 2100+

- **Kaggle:** Competitions Expert, 6th and 14th in playground series

- **Music:** A music fan, heavy user of Apple Music(at least 1 day per week). Interested in Blues, Rock, Bossa-nova, especially Britpop.