Ulysses Kee

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Work Authorization: US (H1-B1, no petition required) | UK (Graduate Visa) | SG (Citizen)

EDUCATION

National University of Singapore — Singapore, SG
MS in Computer Science (First-Class Honours) — Jan. 2021 – Jan. 2023
Thesis: Algorithmic Trading with Case Based Reasoning and Multi-Agent Systems

University of Warwick — Coventry, UK
Bachelor of Science in Management with Finance (First-Class Honours) — Oct. 2017 – Jul. 2020
Relevant Courses: *Econometrics*, *Database Systems*, *Data Science*, *Investment Management*, *Statistics*

EXPERIENCE

Data Engineer Intern — Remote, SG
Binance — Feb 2023 - Aug 2023
- Developed Airflow DAGs to effectively coordinate Spark operator jobs, automating daily batch data syncing.
- Designed and implemented Flink workflows for real-time data synchronization from Kafka topics into target tables in StarRocks.

Research Intern — Singapore, SG
NUS - Singapore Blockchain Innovation Programme — Aug. 2022 - Feb. 2023
- Refactored the frontend UI of Verazt, a static analysis tool used to automatically find security bugs and vulnerabilities in smart contracts.
- Developed a call graph visualization tool used to analyse the structure of Solidity smart contracts.
- Developed a parsing expression grammar (PEG) used for the parsing of semantic tests from the official Solidity repository into internal Rust data structures using the pest parser.

Software Engineer Intern — Singapore, SG
Cloudflare — Dec. 2021 - May 2022
- Developed FlareTools, a web-based application using React, Chakra UI and Cloudflare Workers, to help internal teams and partners gain better visibility over product configurations, and copy configuration records and settings easily.
- Developed a set of REST API services deployed on Cloudflare Workers which was used to interface with the Cloudflare v4 APIs.

PROJECTS

Octoplorer | *TypeScript, Python, ETHGlobal Tokyo Hackathon (Finalist)* — Apr. 2023
- Developed a blockchain explorer which uses natural language queries as input and displays intuitive human readable answers in the form of text, tables, or charts on a React frontend.

P2P Distributed Game | *Java, Distributed Systems* — Sep. 2022 - Oct. 2022
- Developed a peer-to-peer distributed maze game in Java using Java RMI and implemented mutual exclusion between threads via locks.

Definitional Interpreter | *JavaScript, Scilla, OCaml* — Jan. 2022 - Apr. 2022
- Developed a definitional interpreter and type checker for Scilla (an intermediate-level language smart contract language developed for the Zilliqa blockchain) in JavaScript.

TECHNICAL SKILLS

Languages: Python, JavaScript/TypeScript, Java, Rust, SQL, HTML/CSS
Frameworks: React, Node.js, Express, MongoDB, GraphQL, Docker, LaTeX, Hadoop, Spark, Airflow, Flink, Kafka