

# Ulysses Kee

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## INTRODUCTION

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An aspiring and driven Computer Science graduate with a keen interest in software engineering and research, offering strong technical skills honed through diverse projects and high-impact internships.

## EDUCATION

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### National University of Singapore

MS in Computer Science (First-Class Honours)

Singapore, SG

Jan. 2021 – Jan. 2023

**Thesis:** Algorithmic Trading with Case Based Reasoning and Multi-Agent Systems

### University of Warwick

Bachelor of Science in Management with Finance (First-Class Honours)

Coventry, UK

Oct. 2017 – Jul. 2020

**Relevant Courses:** Econometrics, Database Systems, Data Science, Investment Management, Statistics

## EXPERIENCE

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### Research Engineer | Chainlink Labs | Remote

Sep. 2023 – Dec. 2023

- Building DECO, a privacy-preserving protocol.

### Data Engineer Intern | Binance | Remote

Feb. 2023 – Aug. 2023

- Built real-time ETL pipelines using Kafka and Flink for multiple business units including spot and derivatives.
- Developed Airflow DAGs to effectively orchestrate Spark operator jobs for batch data syncing.
- Reduced query latency for a view from > 1 min to ~15 seconds by introducing a snapshot table built using Flink.

### Research Intern | Singapore Blockchain Innovation Programme (NUS) | Singapore

Aug. 2022 – Feb. 2023

- Refactored the codebase of Verazt (a static analysis tool) to increase the extensibility of the web-based editor.
- Developed a call graph visualization tool in React used for analyzing the structure of Solidity smart contracts.
- Developed a parsing expression grammar (PEG) using pest to parse semantic tests from Solidity in Rust.

### Graduate Teaching Assistant | NUS School of Computing | Singapore

Jan. 2022 – Dec. 2022

- Software Engineering on Application Architecture (IT5007): Prof. Prasanna Karthik Vairam
- Software Development Fundamentals (IT5001): Prof. Alan Cheng

### Software Engineer Intern | Cloudflare | Singapore

Dec. 2021 – May. 2022

- Developed FlareTools, a web-based application, for customers to have easier product configurations and comparisons.
- Developed a set of REST API services on Cloudflare Workers to interface with the Cloudflare v4 APIs.
- Presented my project in a global company-wide meeting and published a blog about it.

### Data Analyst | Canopy | Singapore

Jul. 2020 – Jun. 2021

- Reduced data reconciliation times by > 20% by improving automated parsing coverage of different custodians.
- Developed Python scripts for transforming parsed raw data into accessible formats for downstream processing.

## PROJECTS

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### Dec-id | TypeScript, Python, Circom, IC3 Blockchain Camp '23 (2nd place)

Jun. 2023

- Developed an anonymous credentials granting system using Zero-Knowledge Proofs and Chainlink's DECO.

### 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 and multithreaded maze game in Java using Java RMI.

### Definitional Interpreter | JavaScript, Scilla, OCaml

Jan. 2022 – Apr. 2022

- Developed a definitional interpreter and type checker for Scilla in JavaScript.

## SKILLS AND ACHIEVEMENTS

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**Achievements:** IC3 Blockchain Camp '23 (2nd), ETHGlobal Tokyo '23 (Finalist)

**Languages:** Python, JavaScript/TypeScript, Go, SQL, Java, Rust, OCaml, C/C++, HTML/CSS

**Frameworks:** React, Node.js, Express, GraphQL, Docker, LaTeX, Hadoop, Spark, Airflow, Flink, Kafka

**Databases:** MongoDB, MySQL, Hive, Clickhouse, StarRocks