

# TS0YU

Cambridge, UK

[ts0yu@proton.me](mailto:ts0yu@proton.me) ♦ [GitHub](#)

## OBJECTIVE

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Researcher and developer focused on building robust trading systems and learning more about financial mathematics and machine learning, looking for research engineering or Rust development roles.

## SKILLS

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<b>Programming</b>	Rust, Python, Git, C++, C, Solidity, Foundry, Javascript (Node.js), LaTeX
<b>Relevant Skills</b>	Quick learner, excellent communicator, creative, hard-working and motivated
<b>Interests</b>	Machine learning, derivatives, linear algebra, topology, statistical mechanics

## EXPERIENCE

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<b>Research engineer</b>	Jan 2022 - Jun 2022
<a href="#">Alongside Finance</a>	<i>Remote</i>

- Researched various pricing mechanisms for the core decentralized finance protocol, using my programming and analytical skills to assist with the identification and comprehensive evaluation of prospective solutions.
- Helped build, optimize and design rigorously tested internal smart contract libraries, enhancing the efficiency and dependability of the company's codebase.
- Helped develop the core finance protocol using Solidity and Foundry, collaborating with the rest of the team to ensure the successful implementation of key features and functionality.

## OPEN-SOURCE

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- Primary contributor to [Arbiter](#), an agent-based simulation tool to test and evaluate the economic and game theoretic security of protocols on the Ethereum Virtual Machine (EVM). Assisted with the development of key features, such as a robust and lightweight simulations sandbox and a Flashbots executor.
- Principal developer of Folio, a blazing-fast compiler and DSL for the [FVM](#), a finite-state-machine on the EVM. Folio is a macro-based language that allows a user to write programs to put capital to work via a set of opcodes. Implemented lexing, parsing, and custom hexadecimal bytecode generation modules.

## EXTRA-CURRICULAR ACTIVITIES

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- Pursuing ABRSM Grade 7 in cello and passionate about classical music, consistently dedicating time to improving my skills and broadening my knowledge of the genre.
- Member of Boys First/Senior Squad at Cantabrigian Rowing Club, currently training 3-4 times a week.