



YAZHOU TANG

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in yazhoutang

🔗 ADSWT518

C/C++

Python

Linux

Coq

Java/Kotlin

🎓 EDUCATION

Shanghai Jiao Tong University (SJTU), Shanghai, China

Sept. 2019 – Jun. 2023 (expected)

B.E. in Computer Science and Technology

👤 INTERNSHIPS

VST-IDE

Oct. 2021 – Present

Coq Research Internship, Mentor: Prof. Cao Qinxiang

- This project integrates Verified Software Toolchain (VST) with the C development environment to achieve “development-as-security”. [\[VST Homepage\]](#)
- My task is mainly to check whether the entailment relations between assertions hold.
- Some of the results of this project were presented by Prof. Cao at the Technical Forum on “Secure Programming Languages” at CNCC2021. [\[CNCC Homepage\]](#)

Verifying Redblack Tree’s Source Code Safety

Jan. 2021 – Sept. 2021

Coq Research Internship, Mentor: Prof. Cao Qinxiang

[\[Slides\]](#) [\[Paper\]](#)

- The project is based on the separation logic, using Coq and VST to formally verify the correctness of the basic operations of the red-black tree implemented in C.
- I was responsible for the work related to the validation of the operation of lookup returning pointers.
- I studied the first volume of Software Foundations before starting the project.

</> PROJECTS

Data Flow Analysis Framework

Apr. 2022

Java “Program Analysis and Verification” Course Project

[\[Code & Report\]](#)

- In this project, I wrote a parser to analyze the syntax of “ToyIR” designed by the teacher and constructed control flow diagrams, and then analyzed the active variables and undefined variables.
- The project uses bit vectors and bit operations to store and compute the set of variables, improving the efficiency of program operation.

NaiveGator: Recommendations for On-campus Destinations

Oct. 2021 – Dec. 2021

Kotlin “SJTU-ByteDance Joint Course - Android Dev” Project

[\[Code & Slides\]](#)

- The app makes recommendations for destinations such as cafeterias and study rooms based on real-time foot traffic, distance and user preferences.

- I was responsible for the front-end and back-end interface as well as obtaining real-time data via API.
- The project won the second prize in the SJTU Android Mobile Application Development Competition.

♡ HONORS AND AWARDS

Excellence Award in World Robot Contest–VEX Robot [News Report]	Dec. 2020
Three Good Student of Shanghai Jiao Tong University	Nov. 2020
C Grade Outstanding Scholarship of Shanghai Jiao Tong University	Nov. 2020

❖ MISCELLANEOUS

- Volunteering: Shanghai Marathon 2020 volunteer
- Languages: English - Fluent (CET-6), Mandarin - Native speaker