

YAZHOU TANG

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🎓 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 On-campus Research Internship, Mentor: Prof. Cao Qinxiang [\[CNCC Homepage\]](#) [\[VST Homepage\]](#)

- This project integrates Verified Software Toolchain (VST) with the C development environment to achieve “development-as-security”.
- 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.

Verifying Redblack Tree’s Source Code Safety Jan. 2021 – Sept. 2021

Coq On-campus 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 Development” 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.

⚙️ SKILLS

- Programming Languages: C/C++, Python, Coq, Java, Kotlin
- Platform: Linux
- Development: Android, Qt

♡ 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