

# JACOB MALLOY

Knoxville, TN

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## EDUCATION

**The University of Tennessee**  
*B.S. in Computer Science - 3.99*

**08 2020 – 05 2023**  
*Knoxville, Tennessee*

**Franklin High School**  
*Summa Cum Laude*

**08 2016 – 05 2020**  
*Franklin, Tennessee*

## COURSEWORK / SKILLS

- |          |              |           |            |         |
|----------|--------------|-----------|------------|---------|
| • C/C++  | • eBPF       | • Bash    | • GDB      | • Linux |
| • Python | • JavaScript | • VS Code | • Valgrind | • Git   |

## PROFESSIONAL EXPERIENCE

**CORSys Research Lab**  
*Undergraduate Research Assistant*

**06 2021 – Current**  
*Knoxville, Tennessee*

- Work on optimizing the memory usage by analyzing different Garbage Collectors usage patterns.
- Research non uniform memory architectures with the ZGC garbage collector in OpenJDK's HotSpot JVM.
- Port internal kernel change modifying the cgroup system from kernel version 5.7.2 to 5.14.

**Code Ninjas Franklin**  
*Lead Sensei*

**10 2018 – 07 2020**  
*Franklin, Tennessee*

- Provided a safe and fun learning environment for kids ages 7-14 to develop programming and STEM skills.
- Led multiple summer camps fostering a positive environment to learn things such as scratch, JavaScript, and educational STEM skills.

## TEACHING EXPERIENCE

**First Lego League Robotics Team**  
*Co-Coach*

**08 2019 – 12 2019**  
*Franklin, Tennessee*

- Founded a FIRST LEGO League robotics team that won the robot portion of the Nashville competition.
- Led a team of students ages 9-13 to work as a team building a robot and creating an innovation project.
- Fostered an environment that was conducive to team work and learning engineering skills.

## Extracurricular Involvement

**Franklin High School Robotics Club**  
*Lead Programmer*

**05 2018 – 05 2020**  
*Franklin, Tennessee*

- Managed multiple other club members using Git as a version control.
- Taught and led younger members of the robotics team to program the competition robot.
- Contributed to developing the Java software for two Robot competitions.

## VOLUNTEER EXPERIENCE

**Brenthaven Cumberland Presbyterian Church**  
*Youth Member*

**07 2015 – 07 2020**  
*Brentwood, Tennessee*

- Participated in several mission trips including wildfire cleanup in the Smokey Mountains.
- Engaged in over 100 hours of community service through church organized missions.
- Member of the team providing sound engineering and live streaming services.

**Loudon Cumberland Presbyterian Church**  
*Volunteer*

**08 2021 - Current**  
*Loudon, Tennessee*

- Participate on the audio visual team running sound, screens and the camera system.