

Ted Soldatov

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EDUCATION

University of Maryland, Baltimore County Baltimore, MD

Aug 2024 - May 2027

B.A Mathematics, B.S Computer Science

- **Coursework:** Data Structures and Algorithms in C++, Linear Algebra, Multivariable Calculus

EXPERIENCE

Verizon, Walter Reed Naval Base

Jun 2026 - Jul 2026

Software Engineering and Robotics Mentor

Bethesda, MD

- Mentored high school students in STEM-enrichment programs by facilitating project-based learning and fostering a supportive environment to enhance engagement and comprehension
- Collaborated with program staff to enforce safety protocols and curriculum standards, while providing individualized support to students struggling with technical concepts in robotics and software engineering
- Served as a role model for underrepresented youth, promoting enthusiasm for STEM fields through hands-on activities, career exploration, and character development initiatives

Headstarter

Jun 2024 - Sep 2024

Software Engineering Fellow

NYC, NY

- Collaborated with a team of upperclassmen to build and scale 5 fullstack React/Next apps using Firebase, enhancing application performance and user experience
- Mastered 7 new features, libraries, and frameworks including React, Next, Node, Python, JavaScript, REST APIs, and Firebase, which improved my ability to develop robust applications

University of Maryland

Jun 2023 - Nov 2023

Undergraduate Research Assistant

College Park, MD

- Developed a script to process YouTube's 8M dataset for training data for Novel View Synthesis Diffusion Models, enhancing data preparation efficiency
- Conducted data analysis on over 10,000 JSON objects and 100,000 hours of video, ensuring the accuracy and validity of the pre-processing script
- Optimized processing time by utilizing campus servers to run the script on a VM and began implementing multithreading, improving script efficiency

PROJECTS

ETF Optimizer | Python, Javascript, Open AI Assistants, React, Flask, ETF DB (by Yahoo)

- ETF Portfolio optimizer that takes in a user's current ETF portfolio through a CSV and based on the constantly updated ETF database by Yahoo that is fed to Chat GPT's API
- Performed analysis on the 30 categories of the ETF database for a total of over 2000 different ETFs analyzed with the help of GPT 4o
- Implementing personal portfolio storage in AWS S3 for simpler use of the application
- Dockerization and AWS EC2 deployment once every feature is implemented

Social Media Post Organizer | C++, Makefile, Valgrind

- Designed and implemented a flexible C++ priority-queue ADT (SQueue) supporting both skew and leftist heap variants, with user-pluggable priority functions via function pointers.
- Optimized core operations (merge, insert, extract) to run in amortized $O(\log n)$ time, and enabled dynamic rebuilding of the heap when switching priority functions or heap structures.
- Built a comprehensive test suite using a custom Tester class and random data generator, covering normal, edge, and error cases; achieved complete pass rate and validated zero memory leaks with Valgrind.
- Ensured robust C++ semantics by implementing deep-copy constructor, assignment operator overloading, and following best practices for resource management and exception safety.

TECHNICAL SKILLS

- **Languages:** Java, Python, C++, JavaScript, HTML/CSS
- **Frameworks:** React, Node.js, Flask, JUnit, Material-UI
- **Developer Tools:** Git, Docker, VS Code, Eclipse, K8s, EC2
- **Libraries:** pandas, NumPy, Matplotlib, keras, tensorflow, hugging face
- **Other:** Soldering, Woodworking, Engineering Design