THOMAS WALTER

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EDUCATION

Yale University, New Haven, CT *Expected Graduation Dec. 2025*
Bachelor of Science in Computer Science | GPA 3.72
Relevant Coursework: Algorithms, Systems Programming, Computational Intelligence for Games, Database Systems, Full Stack Web Development, Data Structures, Mathematical Tools for Computer Science, Introduction to Programming, Introduction to Computer Science, Real Analysis, Linear Algebra, Multivariable Calculus

TECHNICAL SKILLS

- *Programming Languages:* Python, Java, C/C++, SQL, JavaScript, R, HTML, CSS, TypeScript, Racket, Rust
- *Tools:* React, Flask, Version Control (Git), Linux/Unix, TensorFlow, PyTorch, MATLAB, IoT Protocols & Standards (OPC UA, MQTT, UDP), Bash scripting, embedded systems, firmware, web development, MacOS, Windows, Jira

WORK EXPERIENCE

Blenman Innovation Group, *Student Researcher: Software Engineer*, New Haven, CT *Jan. 2025 – present*
- Work 15 h/w developing software at BIG, a cancer research lab at the Yale School of Medicine
- Develop web application for hospitals, researchers, and clinics to view and understand patient data
- Ensure scalability and portability of the application, guaranteeing functionality across MacOS and Windows
- Interact with all tiers of the web-development stack, using SQL, R, Python, JavaScript, TypeScript, HTML, CSS

Schneider Electric, *Intern Firmware Servo Drives*, Marktheidenfeld, Germany *May – Aug. 2025*
- Worked full-time on a team of 10 firmware engineers in an agile framework that included daily Scrum meetings, twice weekly exchanges on technical progress, and weekly iteration planning sessions
- Delivered individual programming and research projects on a three-week, iterative basis
- Researched client tools for configuration and testing of the team's communication applications, building an understanding of IoT communications specifications and protocols like OPC UA, TCP, UDP, UADP, MQTT
- Created applications and scripts for testing of the team's embedded systems application

Jon Ossoff for U.S. Senate, *Field Intern*, Atlanta, GA *Nov. 2020 – Jan. 2021*
- Executed the campaign's daily virtual phone banks, with 50+ volunteers per shift
- Made 1200+ calls to Georgians, confirming volunteers ahead of their upcoming events and recruiting in total 559 new volunteer phone shifts, the most out of the 20-person intern class

Nevada Democratic Coordinated Campaign, *Fellow*, Las Vegas, NV *Sep. – Nov. 2020*
- Facilitated the campaign's central Las Vegas Virtual Staging Location, along with two supervising organizers and one other fellow, familiarizing hundreds of new volunteers with campaign systems
- Administered 30+ virtual phone bank trainings, the most of any fellow, and hundreds of volunteer recruitment calls

SELECTED PROJECTS AND EXTRACURRICULARS

"Challenges in Development, Distribution, and Maintenance of Software Visualization Tools in Biology and Medicine"
- Paper discussing challenges in developing Blenman Innovation Group software VisAPPprot, a full stack web program offering alternative visualization of common omics, written with SQL, R, Python, JavaScript

Dependency Visualizer
- Tool written in Python to visualize dependencies of R projects built with R package manager 'renv'

Cello Performance
- *Professors:* Ole Akahoshi (Yale School of Music), Hayoung Choi (Emanuel Feuermann Conservatory)
- *Orchestras:* National Youth Orchestra of Germany, Yale Symphony Orchestra, World Youth Symphony Orchestra
- *Competitions:* 1st Prize Frankfurt Regional and Hesse State Competitions, 2nd Prize German National Competition, Lunigiana International Music Festival Concerto Competition Winner, Interlochen Fine Arts Award, Music Academy Liechtenstein Scholar, 1st Prize Neumann Foundation Scholarship Competition, 1st Prize Grand Prize Virtuoso Competitions Salzburg and Austria, Guest Artist Turin Chamber Music Festival, Juilliard & NEC acceptances