Dylan Toth

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EDUCATION

The University of Tennessee

May 2026

Bachelor of Science in Computer Science

Knoxville, TN

• Cumulative GPA: 3.85

EXPERIENCE

Software Engineer Intern

 $May\ 2024-August\ 2024$

General Motors Austin, TX

- Developed a .NET mobile application that integrated existing internal tools to manage teams, resulting in enhanced productivity and adoption by over 120 employees
- \bullet Refactored and rewrote 3 C# desktop applications to greatly improve loading time, with Doxygen being used for XAML documentation generation for future development
- \bullet Improved the current employee search feature on a UI dashboard by reducing API calls and implementing a fuzzy search algorithm, resulting in a 220% query speedup

Systems Analyst Intern

August 2022 – December 2022

The University of Tennessee

Knoxville, TN

- Implemented and maintained a Python script to identify and flag issues in over 3,000 user accounts, ensuring seamless access to clusters for researchers and preventing potential errors
- Facilitated the transition of over 400 outdated user profiles from the LDAP on a legacy cluster to LDAP on a new cluster, addressing migration issues and ensuring seamless continuity during the transition period
- Created and documented 3 GPU example jobs on Jupyter Notebook to aid users in navigating the Slurm Workload Manager and leveraging the Open OnDemand High Performance Computing portal

Projects

United Way 211 Dashboard - Hack4Impact | Next.js, TypeScript

August 2023 - January 2024

• Enhanced the operational efficiency of United Way of Greater Knoxville by creating a user-friendly interface to update information for over 100 non-profits in the 211 hotline database

Chess Engine and Lichess Bot $\mid C++$

- Designed a sophisticated chess engine from scratch in C++, integrating advanced algorithms including minimax for position analysis and strategic decision-making
- Integrated the engine with a Lichess bot, expanding its reach to a global audience and upgrading the command line UCI support to a complete graphical user interface on lichess.org

Marvel Snap Public API | Fastify, Node.js, NGINX, TypeScript

- Created and deployed a public API for an online card game with over 150 cards and their properties, allowing developers to request all statistics available in a programmatic manner
- Stored cards in a MongoDB database hosted on Atlas and accessed these cards through a Fastify backend on a Digital Ocean Droplet, optimizing server location for speed among US users

Knoxville News Aggregator | Next.js, Node.js, Python, TypeScript

- Pioneered a full-stack web application to concentrate important news in Knoxville, TN on a single page, aggregating information from 25 websites
- Implemented a python web scraper to gather and store more than 100 unique headlines and their metadata in a PostgreSQL database every hour, allowing for quick insights into Knoxville news

Apex Legends Leaderboard | Next.js, TypeScript

• Engineered a Next.js app that tracks and compares Apex Legends leaderboard information by pulling data from the company's public API, enabling users to add friends and view statistic comparisons

SKILLS

Languages: Python, JavaScript, TypeScript, SQL, HTML/CSS, Java, C++, C#

Frameworks and Libraries: React, Next.js, .NET, pandas, Node.js, Express.js, Gatsby

Developer Tools: Git, Tableau, Slurm