

Ethan Tompkins

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EDUCATION

Clemson University

Clemson University | August 2019 - December 2022

- Bachelors of Science **Computer Science**
- **Relevant Coursework:** Machine Learning, Artificial Intelligence, Software Engineering, Distributed Systems, Computer Systems, Network Systems, Database Management Systems, Data Structures and Algorithms,

WORK EXPERIENCE

Itron, *Software Engineer*

Oconee, SC | December 2022 - Current

- Developed and maintained Custom **C#** and **C++** software applications to control manufacturing processes, ensuring accurate data collection and reducing errors by 15%.
- Designed RESTful APIs, built UI and integrated them together to support filtering and pivoting of data using **C#**, **.NET Framework**, **ASP.net Framework**, and **MS-SQL**.
- Implemented continuous integration and deployment pipelines using Azure DevOps Services.

Boeing, *Software Engineer Intern*

Virtual Internship | August 2022 - December 2022

- Created and programmed a hardware device using **Python** to maintain temperature for Cold Storage Volume, working alongside Boeing's development team to ensure compatibility with their ongoing project.
- Integrated a microcontroller with a temperature sensor and compressor using **Node.js** and **Python**, meeting temperature specifications within a controlled environment.
- Developed a custom web interface utilizing **HTML**, **CSS**, and **JavaScript** to remotely control and monitor hardware devices, improving accessibility and ease of use for stakeholders.

Knack Works, *Software Engineer Intern*

Chantilly, VA | May 2022 - August 2022

- Designed an intuitive web application using **Vue.js**, leveraging graph visualization libraries to enable users to explore Kubernetes clusters effortlessly, resulting in customer satisfaction and improved navigation capabilities.
- Extracted data from the **Kubernetes** API (crafted in **Go**) and effectively restructured it into a custom **REST API**, optimizing application performance and functionality for streamlined operations.
- Wrote comprehensive unit and feature tests using **Python Cucumber** and **Gherkin**, significantly reducing bugs and enhancing system stability.

Clemson University, *Software Developer - Machine Learning*

Clemson, SC | December 2021 - December 2022

- Conducted in-depth analysis of ColorNet, a patented machine learning solution developed with **PyTorch** for real-time targeted color correction in live video feeds.
- Researched various machine learning methods, such as convolutional neural networks and transfer learning, to optimize real-time video processing, increasing processing speed over 80% to reach 30 FPS.
- Developed novel algorithms, tested them on large-scale datasets, and produced research papers accepted by the Technical Association of the Graphic Arts (TAGA).

PROJECTS

SavorSpace

- Developed an interactive culinary platform using the **MERN stack** and **Spoonacular API**, delivering dynamic recipe recommendations based on user ingredients and enabling real-time meal collaboration.
- Optimized data retrieval and reduced recipe search latency through caching mechanisms and backend call optimizations using **Node.js** and **Express.js**

SKILLS

- **Languages:** Python, C#, Javascript, C++, Rust, React, SQL
- **Frameworks/Technologies:** Vue, React, Node.js, Express.js, .NET, ASP.net, Postman, MongoDB