Kyle Tennison

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Profile

A pragmatic Mechanical Engineering undergraduate adept in software engineering and computational problem solving. Proven proficiency in machine learning and CAE simulation development with a wide variety of open-source projects in Python, Rust, C/C++, and more. Focused on delivering quality solutions in a timely manner.

Work Experience

Product Management Intern, Onshape (a PTC company) *June 2025 – Present*
- Neuro-Evolution and Reinforcement Learning R&D

Cloud, AI, Enablement & Solutions Intern, Ansys *June 2023 – April 2025*
- Research and development of LLM & RAG workflows using LangChain
- Key contributor to Python project(s) for cloud-native simulation platforms
- Integrated Onshape into cloud simulations

Software Engineer Intern, Avarok Cybersecurity *June 2024 – September 2024*
- Quantum-resistant ultra-encrypted messaging service development in Rust & TypeScript

Subsystem Engineer, FRC Team 5940 *March 2021 – June 2023*
- Led Climber system development in 2023
- Head of Machining in 2022
- Competed in World Championships (2022 & 2023); ranked top 10 worldwide both times

Education

Georgia Tech *2024 – 2027*
(In progress) B.S. Mechanical Engineering; GPA 4.0

Cañada College *2023 – 2024*
Transfer, Mechanical Engineering; GPA 4.0

Awards & Certifications

- Cañada College Engineering Certificate
- FRC Awards (earned as a team):
  - Industrial Design Award (2023)
  - Excellence in Engineering (2023)
  - Competition Winner: Monterey 2022, Monterey 2023, World Championship–Roebling Division 2022
- Georgia Tech ME2110 1st place Design Award (2025)

Projects

Linear-Elastic FEA Solver (Magnetite) *github.com/kyle-tennison/magnetite*
- Rust-based finite element solver for isotropic, linear-elastic materials

Ragposium *www.ragposium.com*
- Free RAG (Retrieval Augmented Generation) search engine for academic papers published on arXiv

Self-Balancing Robot (Franklin) *kyletennison.com/articles/franklin*
- ESP32-based, 3D printed self-balancing robot. Uses an accelerometer & PID loop

Newtonian Navier-Stokes CFD Solver *github.com/kyle-tennison/navier-2d*
- A time-stepping Computational Fluid Dynamics (CFD) simulator for incompressible Newtonian fluids.

OnPy *github.com/kyle-tennison/onpy*
- An intuitive, open-source Python interface to Onshape APIs

Technologies

Languages: Python (7 yr), Rust (3 yr), C (4 yr), C++ (4 yr), TypeScript/JavaScript (3 yr)

Tools: SolidWorks (4 yr), OnShape (6 yr), Ansys (2 yr), KiCad (1 yr)

This document is available online at kyletennison.com/resume