Rick Hanish

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EDUCATION

University of Texas at Austin – Bachelor of Science, Computer Engineering   Spring 2024
- GPA: 4.0 / 4.0

Relevant coursework and experience:
- Python, C, C++, Java, MATLAB, Simulink, LaTeX
- Machine learning (LNN's, Transformers, GCN's)
- Embedded systems
- Linear systems and signals – convolutions, Fourier transforms, Laplace transforms
- Circuit analysis and design
- Digital logic design
- Linear algebra

WORK EXPERIENCE

Dynetics, Sensor Systems Department – Software Engineering Intern   Summer 2022
- Developed transformer neural networks and graph convolutional networks in Python to discriminate between threats and non-threats in an interceptor system
- Translated Simulink model to C++ with 25x improved speed and greater interoperability with systems
- Documented research and work in a thorough LaTeX technical report

Peer-Led Undergraduate Study – Digital Logic Design Study Group Facilitator   Spring 2022
- Collaborated with a team of four other facilitators, a program coordinator, and a professor to review material and create an agenda for an official weekly study group
- Led a weekly study group for class – guided the discussion among peers according to an agenda and ensured that every attendee was included

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ACTIVITIES AND LEADERSHIP

Texas Rocket Engineering Laboratory   Spring 2022 – Present
- Avionics Software Team – develop mission control software in Python to communicate with the rocket from the ground during flight
- Weather Balloon Test Team – implemented hardware and Python to gather data about weather conditions used to guide the rocket

Tau Beta Pi Engineering Honor Society – Officer, Service Coordinator (Fall 2022)   Spring 2022 – Present
- Participate in fundraiser, alumni, social, professional development, and community service events
- Coordinate all community service events for the chapter, collecting and reporting attendance at each

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FEATURED PROJECTS
- Created UT-themed rock, paper, scissors game for Cortex-M microcontroller
- Programmed Monte Carlo simulator to predict outcome of combat in the board game Axis and Allies
- Designed program to generate and display randomized routes in the board game Ticket to Ride

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HONORS AND AWARDS
- J.K. Aggarwal Endowed Presidential Scholarship in ECE   Fall 2022 – Spring 2023
- Tau Beta Pi Texas Alpha Chapter Outstanding Member Scholarship   Fall 2022
- Tau Beta Pi National Scholar   Fall 2022 – Spring 2023
- Cockrell School of Engineering Distinguished College Scholar   Spring 2022

ADDITIONAL INFORMATION
- DoD secret security clearance   Last Active: Summer 2022