

Jonas Wagner

Curriculum Vitae

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Education

Since **The University of Texas at Dallas**

Fall 2020 PhD Mechanical Engineering

Concentration: Dynamic Systems and Controls

Overall GPA: 3.47

Fall 2016 - **University of Wisconsin-Platteville**

Spring 2020 B.S. Engineering Physics and B.S. Electrical Engineering

Emphasis: Control Systems, Minor: Mathematics

Overall GPA: 3.37

Teaching Experience

Fall 2023 **Teaching Assistant - Systems and Controls**

Mechanical Engineering, The University of Texas at Dallas

Professor: Dr. Yaoyu Li

- Managed weekly assignments and held bi-weekly recitation sessions
- Developed and managed an optional design-related final project
- Prepared and lectured the pre-exam in-class review sessions

Spring 2023 **Team Mentor - UTDesign EPICS**

- Spring Erik Jonsson School of Engineering and Computer Science, The University of Texas at
2024 Dallas

- Mentored multiple five-person teams of undergraduate students
- Assisted nonprofit sponsors in defining the project requirements
- Aided students on technical aspects of their projects

Fall 2020 - **Teaching Assistant - Introduction to Mechanical Engineering I & II**

Spring 2022 Mechanical Engineering, The University of Texas at Dallas

Professors: Dr. Oziel Rios and Dr. Dani Fadda

- TA for 4 sections totaling more than 200 students
- Instructed students in person on weekly labs and assignments
- Graded weekly deliverable and answered any grading related questions
- Collected and aggregated assignments for ABET Accreditation
- Communicated with students via email and MS Teams to answer course-related questions

Spring 2020 **Lab Assistant - Introduction to Automatic Controls**

Electrical and Computer Engineering, University of Wisconsin-Platteville

Professor: Dr. Mehdi Roopaei

- Supervised and instructed junior and senior engineering students in control labs
- Transitioned DC-motor control labs into virtual Simulink-based labs (still used today)
- Provided students with video lectures for completing lab assignments virtually

- Fall 2019 **Lab Assistant - Introduction to Engineering Projects**
 Electrical and Computer Engineering, University of Wisconsin-Platteville
 Professor: Dr. Mehdi Roopaei
- Assisted in teaching first year undergraduate students through the Electrical Engineering Module
 - Guided students through a lab performing simple analysis and testing of amplifier circuits
- Dec 2019 **Guest Lecturer - FEA Automation Workshop**
 Engineering Physics, University of Wisconsin-Platteville
 Professor: Dr. Gokul Gopalakrishnan
- Hosted a workshop for automating FEA testing using ANSYS workbench
- Summer 2019 **Student Assistant - Online Course Development**
 Center for Distance Learning, University of Wisconsin-Platteville
 Professor: Dr. Mehdi Roopaei
- Assisted in the development of course materials for the online graduate course:
 Engineering 7310 - Control Systems Engineering I
- Fall 2016 - **Robot Design and Controls Mentor**
- Spring 2020 FIRST Robotics Competition Team 171, Platteville, WI
- Mentor High School students to design, build, and control robots for competition
 - Teach fundamental math and physics concepts while inspiring students to pursue STEM careers
 - Facilitate the logistics of traveling for competition and outreach events
 - Restructured the club administration to allow expansion of the organization to additional STEM programs throughout the area K-12 education system

Relevant Coursework

- 2022-2023 Real Analysis · Optimal Control and Dynamic Programming · Model Predictive Control
- Spring 2022 Robust Control Systems · Multi-Agent Robotic Systems · Elementary Analysis II
- Fall 2021 Engineering Optimization · Elementary Analysis I
- Spring 2021 Nonlinear Systems · Convex Optimization · Dynamics of Complex Networks and Systems
- Fall 2020 Linear Systems · Optimal Estimation & Kalman Filters · Probability & Random Variables
- Spring 2020 Digital Signal Processing · Measurements and Instrumentation · Senior Design
- Fall 2019 Discrete Time Controls · Electric and Magnetic Fields
- Spring 2019 Modern Control Systems · Engineering Physics Sensors Lab · Analog Electronics
- Fall 2018 Automatic Controls · Logic and Digital Design · Applied Mechanics
- Spring 2018 Signals and Systems · Engineering Computation · Applied Optics

Awards

- Spring 2022 UTD Jonsson School - Best Teaching Assistant in Mechanical Engineering
- Spring 2022 UTD Jonsson School - Deans Teaching Fellowship
- Spring 2021 UTD Mechanical Engineering - Outstanding Contributions to Undergraduate Education
- Fall 2019 Undergraduate Research, Scholastic and Creative Activity (URSCA) Scholarship
- Spring 2019 UW Platteville Prototype Hackathon - 3rd Place
- Spring 2019 Foxconn Smart Cities Smart Futures Competition - Winner (Round 1 & 2)
 Honorable Mention (Round 3)
- Spring 2019 Undergraduate Research, Scholastic and Creative Activity (URSCA) Scholarship