

Chance Shepherd

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Education

Iowa State University Ames, Iowa
Bachelor of Science, Mechanical Engineering

Expected Graduation: Spring 2028
3.2 GPA

Work Experience

SpaceX, Bastrop, Tx.

Starlink Engineering Intern – Production

May 2026 – August 2026

- Created a custom inspection tote using a Raspberry Pi 5 and 3D-printed universal chassis, enabling **first-ever visibility into production data** like gravity-drop actuator performance, belt wear, and end effector defects
- Developed a repair and return material authorization (RMA) process, giving engineering technicians and operators full traceability over internal and external repairs
- Identified a **capability gap** and built a 3D printing station (Formlabs Form 4 SLA, Bambu Lab H2D Pro FDM), saving production thousands of dollars on niche jigs and tote inserts
- Redesigned a pneumatic suction end effector in Siemens NX to pick and place aluminum sheets within production

Tesla, Austin, Tx.

Cell Engineering Intern – Electrode Reliability and Equipment

January 2026 – May 2026

- Designed custom parts using SolidWorks for an equipment retrofit project on an edge trimming actuator system to optimize engineering access to data and improve actuating precision
- Developed a comprehensive **Python-based dashboard** using AI coding tools (Claude Code) to aggregate and analyze reliability data, enabling identification of key performance indicators to improve data driven decision making across cell manufacturing for managers and engineers
- Troubleshooted and assisted in fixing** an active unplanned downtime scenario with an automated guided vehicle which experienced a hydraulic poppet valve failure using root cause analysis

Iowa State University, Ames, IA

Lead MELTs Mechanical Engineering Peer Mentor

May 2026 - Present

- Advise all other Peer Mentors on how to be successful leaders
- Lead the annual freshman mechanical engineering design competition including all planning and execution of the event

MELTs Mechanical Engineering Peer Mentor

August 2024 – August 2026

- Independently lead** a biweekly class of 20-25 first-year mechanical engineering students (ME 1900)
- Instructed students on excelling in exams, building professional resumes, engaging with employers, effective time management, study strategies, and available university resources
- Conducted individual meetings with every student to address academic concerns and foster student development

Collins Aerospace, Cedar Rapids, IA

Industrial Engineering Co-op

January 2025 – August 2025

- Supported design and manufacturing efforts by creating and integrating components using advanced **3D printing technologies** and SolidWorks on a daily basis
- Created and implemented specialized tools such as a nozzle remover and antenna mounting fixtures to reduce operator strain and simplify complex tasks
- Rapidly prototyped** engineering solutions under high-pressure work stoppage timelines, including the design and fabrication of alignments pins to ensure precise chassis assembly

McLean County Highway Department, Bloomington, IL

Engineering Intern

May 2024 – August 2024

- Assisted in collecting and organizing field data for road maintenance and infrastructure improvement projects

Leadership and Activities

SAE EV Formula Team – Powertrain Team Lead (elected position)

April 2025 – December 2025

- Lead the design, manufacturing, integration, and testing of the electric powertrain system for **Iowa State University's first Formula SAE EV race car**
- Held a weekly meeting, and manage a talented team of engineers to develop high-voltage systems, motor integration, tractive battery assembly, BMS system, and drivetrain components
- Oversaw testing and validation processes to optimize performance, efficiency, DCIR cell characterization, and reliability of the EV powertrain

Skills

CAD (Nx, Solidworks), Python, AI Coding Tools (Claude, Grok, OpenAI), 3D Printing, Data Analysis, High-Voltage Systems, Battery Cell Technology, GD&T, Enhanced PPE (PAPR), Matlab, Microsoft 365 (Excel, Power BI, Word)

Personal Projects

Custom 3D Printed Reflector Telescope (8in, Dobsonian), 2004 Mazda Miata Restoration, Personal Website, MP3 Player