

# Andrew R. Noble

Robotics engineer with fullstack software and AI skills

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## EXPERIENCE

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### Robotics Engineer, Tortuga AgTech — Denver, CO, Oct 2021 - April 2023

- Developed software (Python, ROS) for end-effector diagnosis, reducing troubleshoot time from 30 to 3 mins
- Developed ultraviolet fungi treatment, offering customers new chemical-free fungicide service ([video](#))
- Addressed fleet-wide slip-ring comms failure, enabling record 2x 1000 kg harvest days
- Extensive robot troubleshooting, bring-up, and repair through entire tech stack
  - *Mechanical*: cable pinch damage, bent arms, motor replacements + calibration
  - *Electrical*: faulty PCBs, unreliable connections, ground shorts
  - *Software*: misconfigured software, docker container deployment of ROS2-based robots
- Managed California site for 9 weeks, keeping fleet 80%+ healthy while harvesting 3x/week

### Contracts, Learning, Startups, May 2023 - Current

- Post-Tortuga, I chose to revisit software, something I really enjoyed during college.
- Self-directed study: Udemy web development course, 12 projects on Github, 4 of them deployed
- Startups in EdTech: I've explored creating interactive STEM diagrams with AI for STEM education
  - Built and deployed 4 different web-based learning tools
  - One project received 3K+ visits, led to conversations with educators and inbound investor interest
  - Gained experience in user research, rapid prototyping, and shipping independently.
- Funded by contract stints at REI (Sales, Jan–Aug 2024) and Alyeska Pipeline Service Company (Drafter, Sep 2024–Jan 2025), where I automated drafting processes with Python and AutoLisp.

### Field Robotics Engineer Intern, Tortuga AgTech — Santa Maria, CA, Summer 2020

- Conducted software release and feature tests, communicated results to Denver SWEs

### Mechanical Engineering Intern, Coffman Engineers — Anchorage, AK, Summer 2019

- Developed pipeline loading estimates per environmental constraints on AK's northern oil fields

## EDUCATION

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### Bachelor of Science, Mechanical Engineering (Mechatronics), California Polytechnic State Univ., SLO — 2021

- GPA: 3.8

## SOFTWARE PROJECTS

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### Circuit Tutor

- React/FastAPI application that can explain and generate electrical circuits: [circuit-tutor.xyz](http://circuit-tutor.xyz)

### Physics Viewer

- React/FastAPI application that can tutor introductory physics using free body diagrams: [physicsviewer.com](http://physicsviewer.com)

### Fermi Chain

- React + tailwind application for practicing estimation skills. Attracted 3500 unique site visits

## SKILLS

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|--|---|
| - C, Python                                      | - CAD: Onshape, Solidworks, Altium, AutoCAD |
| - Linux cmd line debugging and operations        | - Drilling, tapping, soldering, crimping    |
| - Web dev: HTML, CSS, Typescript, React, FastAPI | - Reading electrical schematics             |
| - Git, github actions, ROS2, docker, postgresql  | - Multimeter, oscilloscope usage            |
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