

Rohan S Agarwal

SYSTEMS ENGINEER · MECHANICAL · SOFTWARE · EMBEDDED · TESTED

linkedin.com/in/rohan-s-agarwal | rohansagarwal.com | +1 (612) 695-7260 | rohan.sam.agarwal@gmail.com

Engineer with 4+ years of building and validating electromechanical and embedded hardware, from concept through production. Comfortable across mechanical, electrical, software, and manufacturing teams, with a track record of improving reliability, accelerating bring-up, and driving cross-functional execution.

SKILLS

Programming	C, C++, Python, MATLAB, JavaScript, HTML, CSS, PHP, SQL, Git
Design & CAD	SOLIDWORKS, Fusion 360, CATIA V5, Siemens NX; additive manufacturing (3D printing), DFMA, rapid prototyping
Systems & Methods	System-level DFMEA, hardware bring-up and characterization, test automation, cross-functional design reviews, full product lifecycle

EXPERIENCE

Systems Engineer · CNH Oak Brook, IL · May 2022 to Present

- Integrated and validated embedded hardware platforms, reducing **bring-up time from hours to minutes**, through automated C++ and Python test frameworks for usability and regression testing.
- Improved automated **test coverage from 4 of 12 to 11 of 12 subcircuits** on the target PCB, closing gaps across characterization and reducing manual testing needs.
- Identified critical failure modes on Hawkeye® 2 (a 192-channel electro-mechanical flow control system) through system-level DFMEA; traced a **5% failure rate** to a manufacturing process change and, after root-cause analysis and corrected material selection, reduced it to **under 0.5%**.
- Improved system architecture readiness for production and usability across **5 agricultural vehicle platforms**, through design reviews with mechanical, electrical, and software teams.

Co-Op Intern · SAIC Reston, VA · Jan 2022 to Apr 2022

- Improved usability and user experience by redesigning 50+ UI icons within brand guidelines.

Summer Intern · Cummins Columbus, IN · May 2021 to Aug 2021

- Enabled data-driven decision making by analyzing large datasets using SQL and producing actionable technical reports.

Lab Supervisor · Purdue 3D Printing Club West Lafayette, IN · 2019 to 2022

- Guided hundreds of users in design for additive manufacturing and printer operation, and improved print success rates by advising on modeling technique, material selection, and DFMA.

PROJECTS

Independent Project · rohansagarwal.com Self-hosted · Ongoing

- Built and self-host **rohansagarwal.com** on a home server (Docker on Ubuntu, deployed via Coolify), using AI-assisted development with Claude Code to design and ship projects end to end.
- Deployed full-stack web apps including Plunder (a real-time multiplayer game), a Plaid-connected finance dashboard, a tax-aware stock-sale calculator, and an AI assistant, with more in progress.

EDUCATION

Purdue University West Lafayette, IN · 2018 to 2022

B.S. Majors (2): Virtual Product Integration (VPI), Web Programming & Design.

Certificate: Collaborative Leadership.

Cornell University Ithaca, NY · 2023

Certificate: Python Programming.