

Eric J. Rich

Engineering Innovation Specialist | Maker | EJRCNC

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Summary

I'm an **Engineering Innovation Specialist** with a broad range of technical skills and hands-on experience across **fabrication**, **product development**, **electronic hardware**, and **software integration**. I combine creativity with resourcefulness, always learning on the fly to tackle new challenges. Whether it's designing with CNC machines, developing custom hardware, or solving technical problems, I bring projects from concept to completion with a focus on practical solutions. My adaptable skillset and commitment to learning new things help me provide solutions that fit the needs of any project.

I also believe that a **positive work environment** is key to success. I work best in **team-focused environments** where people support each other. I look for places that encourage **open communication** and **collaboration** to create strong, motivated teams.

Core Competencies

- **Fabrication & Product Development:** Expert in CNC machining, 3D printing, and creating solutions for both hardware and software challenges.
- **Innovative Problem-Solving:** Skilled in analyzing technical problems and developing custom solutions to improve performance and get results.
- **Process Improvement & Lean Principles:** Experience in using Lean methods to reduce waste, improve workflows, and save time and resources.
- **Technical Design & Documentation:** Strong background in CAD design, writing technical documents, and ensuring a smooth transition from design to production.
- **Adaptability & Continuous Learning:** Resourceful and able to quickly learn new skills for each project, always ready for new challenges and technologies.
- **Collaboration & Mentorship:** Team-oriented with experience teaching and mentoring, helping others grow while ensuring project success.

Experience

Freelance Contractor, R&D, and Startup Collaboration – EJRCNC (2020–Present)

Worked on various freelance and contract projects, including electrical work, tech support, custom fabrication, and consulting services.

Used CNC machining, 3D printing, and custom fabrication to solve unique client challenges, such as building custom hardware and integrating software.

Collaborated with startups and contributed to R&D projects (under NDA), handling both mechanical and electronic aspects.

Consistently learned new programming and hardware skills to apply to projects involving hardware design, software integration, and fabrication.

Mentored teams and individuals to help them improve their skills and grow professionally.

John R. Bromiley Machine Shop – CNC Setup/Programmer (2017-2020)

Created custom CNC programs for military-grade products, significantly improving tool life and reducing cycle times.

Worked on R&D projects to streamline production processes, always looking for ways to enhance efficiency and reduce downtime.

Globus Medical – CNC Machinist (2015-2017)

Manufactured high-precision spinal implants with tight tolerances, ensuring quality through constant inspection and teamwork.

Scientific Instrument Services – CNC Machinist (2012-2015)

Managed up to five CNC machines, developed custom programs, and mastered OGP SmartScope routines to improve inspections and workflow.

Edmund Optics – CNC Lathe Operator/Programmer (2008-2012)

Produced military-grade night vision components using advanced lens production techniques, maintaining strict quality standards.

MGP LLC (SGL Carbon Group) – CNC Operator/Programmer (2006-2008)

Developed aerospace and energy sector components using FANUC lathes, including high-precision parts like Tomahawk missile components.

H. Shoemaker Welding and Machine Shop Inc. – CNC Lathe Operator (2004-2006)

Produced a wide range of parts using CNC lathes for industries like industrial machinery and aviation.

Micro-Coax Inc. – CNC Lathe Operator (Swiss: Star & Citizen) (2003-2004)

Specialized in the production of high-end coaxial cable connectors using Swiss lathes to ensure precision.

Creative House International – Machine Maintenance & Setup (2000-2003)

Set up and maintained machinery for cookie cutter manufacturing, ensuring efficient production and smooth operations.

Education & Certifications

EZ-GUIDE Programming (DOOSAN) (2019)

Mastered DOOSAN's EZ-GUIDE system for CNC optimization.

LEAN Level One Certification (DVIRC) (2014-2015)

Learned Lean methodologies for improving processes and reducing waste.

CNC Training Program (MCCC) (2009)

Extensive training in CNC operations and precision machining.

Drafting Technology & Metal Tech (WCTS) (2001-2003)

Developed a strong foundation in CAD systems and metalworking techniques.