



Peter Yoli

EXPERIENCE

April 2026 - Current

Lead Engineer GE Vernova | Wilmington, North Carolina

- Development of specialized equipment for inspection and maintenance of nuclear power plants.

November 2021 - December 2024

Senior CAD Engineer Amogy, Inc. | Brooklyn, New York

- Developed detailed CAD models for innovative energy solutions at Amogy, Inc.
- Design and structural analysis of tools, fixtures, weldments, lifting rigs, components and subsystems used within proprietary energy generation systems.
- Collaborated with engineering teams to refine design specifications and requirements.
- Reviewed and maintained compliance with industry standards and regulations.

April 2020 - October 2021

Mechanical Design Engineer Oklahoma Robotics, LLC | Oklahoma City, Oklahoma

- Conducted conceptual development and detailed design of proprietary new products and equipment using Autodesk Inventor from office in North Carolina.
- Collaborated with management on design via video conferencing and file sharing applications to ensure alignment on project goals.
- Coordinated assembly, testing, and validation processes in Oklahoma City with the company's manufacturing staff.

September 2018 - September 2019

Engineering Manager Selbach Machinery, LLC | Wilmington, North Carolina

- Executed product and process improvements, enhancing safety and ergonomics while reducing manufacturing costs.
- I design all tooling and fixtures required for the company's wire-EDM machine [AgieCharmilles CUT 30 P] which is used to cut to length the raw material used in the manufacture of solid tungsten needles.
- I also maintain, program and operate the wire-EDM machine.
- I design tooling, fixtures and all other mechanical components of the company's needle-pointing ECM [electro-chemical manufacturing] machines.
- Developed part fixturing system and new program, significantly decreasing wire-EDM manufacturing labor costs and machine process time while minimizing scrap material.
- Prepared machine operation and fixture loading manuals, and trained foreign personnel prior to relocating engineering and manufacturing operations outside the USA.

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SUMMARY

Experienced mechanical design engineer with a career spanning 34 years, specializing in sectors such as nuclear, defense, factory automation, biotech and alternative fuels. Demonstrated ability to lead engineering projects that improve product functionality and user safety. Skilled in applying ergonomic principles and advanced design techniques to meet industry standards. Committed to leveraging technical expertise to achieve operational excellence.

SKILLS

- Product development
- Equipment design
- Quality control
- Process improvement
- Control systems
- Autodesk Inventor
- SolidWorks
- Siemens NX
- Manufacturing processes
- Technical documentation

WEBSITES, PORTFOLIOS, PROFILES

- <http://www.linkedin.com/in/peter-y-5b17a591>
- <https://peteryoli.com/>

May 2017 - October 2017

Automation Engineer Molex –Advanced Connectivity Solutions |
Maumelle, Arkansas

- Conceptualized and designed proprietary high-speed automated assembly and inspection machines for the manufacture of Molex's advanced computer connectivity products, including connectors, cabling, and wiring harnesses.
- Designed automated systems for enhanced connectivity solutions in diverse applications.
- Developed and executed test plans for automation tools and equipment reliability.
- Collaborated with cross-functional teams to streamline project workflows and processes.

July 2015 - July 2016

Tooling Engineer GE-Hitachi Global Nuclear Fuel | Wilmington, North Carolina

- Designed tooling solutions for nuclear fuel manufacturing processes.
- Developed concepts and detailed designs for proprietary in-vessel tooling for nuclear reactor pressure vessel underwater inspection equipment.
- Improved design of existing equipment to enhance safety, ergonomics, and reliability.
- Collaborated with cross-functional teams to improve production efficiency.

September 2014 - June 2016

Principal Ideation Specialist / Owner Intrinsic Potential, LLC |
Wilmington, North Carolina

- Created job-specific tools, fixtures, and custom robotic systems to meet unique industry needs.
- Collaborated with cross-functional teams to improve project workflows and communication.
- Conducted market research to identify trends and inform strategic decision-making.
- Developed training materials for new team members and ongoing staff education.

May 2015 - July 2015

Plant Engineer Aloha Medicinals, Inc | Carson City, Nevada

- Utilized 22 years of mechanical engineering experience, project management, and problem-solving skills to support 33,000 square foot biotech manufacturing operation.
- Collaborated with plant manager, production supervisors, and maintenance staff to ensure operational efficiency of air, water, steam, and electrical systems while developing preventative maintenance strategies to minimize equipment downtime.
- Company website: <http://www.alohamedicinals.com/>

February 2014 - September 2014

Mechanical Design Engineer Corning Inc. | Wilmington, North Carolina

- Developed system utilizing proprietary light sources, advanced optics, servo actuators, and precision linear guide rails to achieve nanometer-

- accurate position control.
- Led conceptual development and detailed design of proprietary automated optical measurement system, enhancing measurement precision.
- Collaborated with a team of optics engineers, electrical engineers, and physicists.

April 2013 - July 2013

Design Engineer Deatwyler Clean Energy | Huntersville, North Carolina

- Focused on cost reduction and strength improvement of several existing Solar PV racking products through design optimization.
- I achieved this by designing geometry of steel beam sections which enabled material thickness reduction, weight savings and enhanced strength.
- Achieved cost and ergonomic benefits by implementing geometry changes in steel beam sections.
- Developed concepts for new products, creating computer renderings and animations to effectively communicate ideas to executives and customers.
- I create computer renderings and animations to convey these ideas to company executives as well as customers.

April 2012 - December 2012

Mechanical Design Engineer Corning Inc. | Wilmington, North Carolina

- Completed third contract with Corning, focusing on specialized engineering projects.
- At this plant location, I worked on the conceptual development and detail design of proprietary custom automated optical fiber inspection machine-vision system.
- Led the Division Engineering Department and coordinated a team of mechanical engineers, electrical engineers, and physicists.
- The project specifics are proprietary; however, the inspection system I designed involved the application of electric and pneumatic actuators for multi-axis motion.

February 2010 - December 2012

Principal Ideation Specialist / Owner World First Consulting | Wilmington, North Carolina

- Presented custom renewable energy systems to clients, leveraging proprietary designs in wind turbine power generation technology.
- Developed custom automated equipment designs to meet specific client needs.
- Led product development venture at World First Consulting, delivering tailored solutions for key client Corning.

February 2012 - April 2012

Design Engineer The Water Company | Pueblo, Colorado

- Co-led team to improve manufacturing costs of proprietary custom electro-mechanical system for industrial water purification.
- Enhanced manufacturability as a key focus of project development.
- Collaborated with engineering manager, scientists, and contract engineers to advance projects at research facility.

September 2010 - November 2011

Mechanical Design Engineer Corning Inc. | Wilmington, North Carolina

- Executed detail design, developed manufacturing drawings, ordered parts, and coordinated vendor interactions while supervising contract mechanics and laborers for effective system installation.
- Utilized 3-axes linear motion and long stroke linear actuators (> 4m) to optimize design functionality.
- Contributed to conceptual development and design of proprietary automated optical fiber manufacturing system, enhancing production capabilities.

September 2009 - March 2010

Mechanical Design Engineer Corning Inc. | Wilmington, North Carolina

- Conceptualized and developed custom proprietary automated system to streamline manual work process.
- Implemented system to enhance product quality and improve ergonomics.
- Improved the quality of the company's finished product as a Mechanical Design Engineer.

February 2009 - September 2009

Design Engineer Seaon Enterprises | Concord, North Carolina

- Conceptualized and designed a custom multi-axis tarp deployment and storage system for flat-bed trailers.
- Designed and manufactured a proof-of-concept prototype to demonstrate functionality.
- Delivered an animated presentation showcasing system design, assembly, and usage.
- Assessed commercial truck driver ergonomics to inform design decisions.

June 2002 - August 2009

Sales Engineer / Owner Symmetric Design Corporation | Wilmington, North Carolina

- Delivered mechanical engineering, ergonomics, ideation, industrial design, product development consulting, animation, computer simulation, video presentation, web design, and design and manufacture of custom tools, fixtures, and robotic systems for various industries, including ideation and conceptual development of custom class II medical devices.
- Designed customized solutions for client requirements in various industries.
- Provided technical support during product demonstrations and client presentations.
- Collaborated with cross-functional teams to streamline project workflows.

October 2005 - September 2008

Director of Engineering Treadwell Corp | Wilmington, North Carolina

- Developed concepts and detailed designs for five iterations of human-powered, preventative health machine, contributing to product innovation.
- Supervised manufacturing and assembly of prototype machines, ensuring alignment with design specifications.
- Created preliminary business plan and researched, qualified vendors for production quantities, facilitating efficient production process.

- This included preparation of patent drawings and technical description of components for the patent application process.
- Company web site: <http://www.treadwellness.com>

June 2007 - July 2008

Ergonomics Advisor United States Air Force | Warner Robins, Georgia

- As a contractor to the Air Force, I provided industrial ergonomics, manufacturing engineering surveys and assessments for Air Force maintenance areas and aircraft hangars.
- Prepared reports identifying concerns and providing corrective recommendations for improved ergonomics.
- Developed concepts and detailed designs for custom maintenance equipment used on various weapon systems.
- Created animated presentations for team leaders and supervisors to enhance understanding of ergonomic practices.

August 2005 - January 2007

Engineering Advisor Emertech, Inc. | Hampstead, North Carolina

- As an engineering advisor, I led the conceptual development and detail design of a custom agricultural machine that deploys a hydroponics system for field crops.
- Supervised manufacturing, assembly, and field testing of prototype machines to ensure functionality and performance.
- Prepared presentations for vendors, investors, and potential customers while researching and qualifying vendors for production of final product.

July 2002 - August 2003

Engineering Advisor Amersham Health | Durham, North Carolina

- Developed concepts for custom in-hospital machine to manufacture and dispense gaseous drug product for medical diagnosis, enhancing diagnostic capabilities.
- Collaborated with engineering director, mechanical and electrical engineers, and research physicists to integrate diverse expertise in machine development at research facility in Durham, NC.
- Produced 3D CAD models and renderings as key project deliverables, supporting design validation and stakeholder communication.

November 1999 - May 2002

Product Development Engineer Pelton & Crane, Inc. | Charlotte, North Carolina

- I was hired as a Product Support Engineer to support the manufacturer of existing products.
- Developed industrial design and conceptual prototypes for new dental products, facilitating their transition to market.
- This included the creation of 3D CAD renderings as well as physical models of proposed new products.
- Supervised product assembly while implementing new procedures and product designs to enhance production efficiency.
- I championed product cost reduction, focusing on alternate manufacturing methods and simplifying assembly processes.
- Coordinated engineering changes between operations in Charlotte and affiliated divisions in Oregon to streamline communication and ensure consistency.
- Company web site: <http://www.pelton.net>

August 1997 - October 1999

Electro-Mechanical Engineer IKA-Works, Inc. | Wilmington, North Carolina

- In this engineering position, I supported the manufacturing of small bench-top laboratory products, such as magnetic stirrers, hot-plates, mixers and shakers.
- Developed assembly tooling and fixtures, supervising assembly personnel to ensure effective use of these tools.
- Engineered components of laboratory products, including pc boards, housings, enclosures, ceramic hot plates, heating elements, electric motors, and drive trains, enhancing product functionality and reliability.
- I designed laboratory products to be compliant with UL, CSA and CE regulatory standards.
- I also worked in other company manufacturing plants in Germany, Malaysia, and China, to better coordinate projects and exchange manufacturing technology.
- Created 3D renderings and physical models of proposed new products to facilitate design evaluation and stakeholder feedback.
- Company web site: <http://www.ika.net/>

April 1996 - June 1997

Design Engineer Ergotech, Inc. | Danbury, Connecticut

- Conceptualized and designed multi-axis work positioning equipment.
- Executed alternate material selection and manufacturing methods to achieve these goals.
- Focused on cost reduction and quality enhancement for several existing products.
- I traveled to existing customers' facilities to provide technical support and training.
- I also worked at an affiliated company manufacturing facility in Sweden, for technical training for a large multi-axis industrial robot that Ergotech, Inc., was the sole North American distributor of.
- I provided inside sales, customer service and technical support for all the company's products.
- I called on prospective new customers to give sales presentations.
- Created new company logo and catalog artwork to enhance brand identity.
- Maintained company website to ensure up-to-date information and functionality.

April 1992 - April 1996

Project Engineer Preferred Engineering Corporation | Danbury, Connecticut

- Designed and created manufacturing drawings of custom remotely-operated underwater equipment for use in nuclear power plants.
- Designed equipment and applied quality assurance procedures to ensure compliance and reliability.
- Provided on-site technical support and supervision for equipment use at nuclear plants.
- Created operating and maintenance manuals to facilitate proper equipment usage and upkeep.
- Company website: <http://www.preferredengineering.com/>

July 1989 - April 1992

Mechanical Designer ISB Products, Inc. | Waterbury, Connecticut

- Designed aluminum extrusions, sheet metal enclosures, machined parts, and weldments to meet product specifications and enhance functionality.
- Created pc board circuit artwork from electrical schematics to facilitate accurate production and assembly.
- Developed manufacturing and assembly drawings, catalog artwork, and installation manuals to support all company products and improve user understanding.
- Company website: <http://www.isblite.com>

EDUCATION

Design Certificate | Mechanical and Electrical Design
Porter and Chester Institute, Watertown, Connecticut