

PETER YOLI

PROFESSIONAL SUMMARY

Results-driven professional with expertise in analytical thinking and creative problem-solving. Proven ability to deliver impactful solutions in dynamic environments. Committed to continuous learning and innovation to enhance operational efficiency.



WORK HISTORY

Senior CAD Engineer, 11/2021 - 12/2024

Amogy - Brooklyn, USA

- Design and structural analysis of tools, fixtures, weldments, lifting rigs, components and subsystems used within proprietary energy generation systems.

Mechanical Design Engineer, 04/2020 - 09/2021

Oklahoma Robotics, LLC - Oklahoma City, USA

- Working from my remote office, I carry out conceptual development and detail design of proprietary new products and equipment, utilizing Autodesk Inventor.
- Design collaboration with management is done via video conferencing and file sharing applications.
- Assembly, testing and validation is carried out in Oklahoma City by the company's manufacturing staff.

Engineering Manager, 01/2018 - 09/2019

Selbach Machinery L.L.C. - Medical Components - Wilmington, USA

- I execute product and process improvements, manufacturing cost reduction, safety and ergonomics improvements.
- 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.
- I developed a part fixturing system and new program which reduced wire-EDM manufacturing labor cost, reduced machine process time and reduced scrap material.
- I prepared a machine operation manual, fixture loading manual and trained foreign personnel in advance of the engineering and manufacturing operations being moved outside the USA.

CONTACT

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SKILLS

- CAD modeling
- Mechanical design
- Technical documentation
- Structural analysis
- Prototyping and testing
- Project management

PORTFOLIO

- <https://peteryoli.com/>

Automation Engineer (Contractor), 05/2017 - 10/2017**Molex - Advanced Connectivity - Maumelle, USA**

- In this contract Engineering role, I am responsible for conceptual development and detail design of proprietary high-speed automated assembly and inspection machines used in the manufacture of Molex's advanced computer connectivity products - proprietary connectors, cabling and wiring harnesses.

Tooling Engineer (Contractor), 07/2015 - 07/2016**GE Power - Wilmington, USA**

- As Tooling Engineer I am responsible for conceptual development and detail design of proprietary in-vessel tooling, (nuclear reactor pressure vessel underwater inspection equipment).
- I am also tasked with design improvements on existing equipment to enhance safety, ergonomics and reliability.

Plant Engineer (Contractor), 04/2015 - 08/2015**Aloha Medicinals, Inc. - Carson City, USA**

- As the Plant Engineer I am utilizing my mechanical engineering background, project management and problem solving skills to support the company's 33,000 square foot Biotech manufacturing operation.
- I work closely with the plant manager, production supervisors and maintenance staff to keep all of the plant's air, water, steam and electrical systems operational and developed preventative maintenance strategies for reducing equipment down-time and maximizing production through-put, cost efficiency, safety and ergonomics.

Mechanical Design Engineer (Contractor), 02/2014 - 09/2014**Corning Incorporated - Wilmington, USA**

- As the lead mechanical design engineer I am carrying out conceptual development and detail design of proprietary automated optical measurement system.
- I am working with a small team of optics engineers, electrical engineers and physicists.
- The development of this system involves the innovative application of proprietary light sources, advanced optics, servo actuators, precision linear guide rails and careful selection of materials used for fabrication to facilitate repeatable position control, to nanometer accuracy.

Design Engineer, 04/2013 - 07/2013**Deatwyler Clean Energy - Huntersville, USA**

- In this engineering role, I am tasked with cost reduction and strength improvement of several of the company's existing Solar PV Racking products.
- I achieved this by designing geometry of steel beam sections which enabled material thickness reduction, weight savings and enhanced strength.
- Cost and ergonomics benefits resulted from these geometry changes.

- I also work on the conceptual development of new products.
- I create computer renderings and animation to convey these ideas to company executives as well as customers.

Mechanical Design Engineer (Contractor), 04/2012 - 12/2012

Corning Incorporated - Wilmington, USA

- This was my third contract with Corning.
- At this plant location, I worked on the conceptual development and detail design of proprietary custom automated optical fiber inspection machine-vision system.
- As the lead design engineer I worked within the Division Engineering Department and utilized 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.

Principal Ideation Specialist / Owner, 02/2010 - 12/2012

World First Consulting, LLC - Wilmington, USA

- World First Consulting was a product development venture, Corning being one of my key clients.
- I produced custom automated equipment designs.
- Other clients were presented with custom renewable energy systems utilizing my proprietary designs in wind turbine power generation technology.

Design Engineer (Consultant), 02/2012 - 04/2012

The Water Company - Pueblo, USA

- As a consultant I worked at their research facility with the engineering manager, scientists, and contract engineers.
- As the co-leader of this team, my responsibilities included, but were not limited to the improvement in the costs of manufacturing their proprietary custom electro-mechanical system for industrial water purification.
- In addition to this facet of the project, the improvement for the ease of manufacturability became a key component.

Mechanical Design Engineer (Contractor), 09/2010 - 11/2011

Corning Incorporated - Wilmington, USA

- At this plant location, I worked on the conceptual development and design of proprietary custom automated optical fiber manufacturing system.
- This was completed using 3-axes linear motion, with the combined application of long stroke linear actuators (> 4m).
- I was responsible for detail design, creation of manufacturing drawings, ordering of parts and all vendor interfaces, as well as the supervision of contract mechanics and laborers for the installation of the completed system.

Mechanical Design Engineer (Contractor), 09/2009 - 03/2010**Corning Incorporated - Wilmington, USA**

- In this role as a Mechanical Design Engineer, my responsibilities were to improve the quality of the company's finished product.
- This included the conceptual development of a custom proprietary automated system for the improvement on a manual work process.
- The improvements realized upon implementation of this system were superior product quality, increased productivity and enhanced ergonomics.

Design Engineer (Contractor), 02/2009 - 09/2009**Seaon Enterprises - Concord, USA**

- In this position, I was asked to do a pre-project assessment of commercial truck driver ergonomics.
- My responsibilities were the conceptual development and design of a custom multi-axis tarp deployment and storage system for flat-bed trailers.
- I designed and manufactured a proof-of-concept prototype.
- The final project deliverable included an animated presentation of the system, its assembly and use.

Sales Engineer / Owner, 06/2002 - 08/2009**Symmetric Design Corporation - Wilmington, USA**

- My company provided services for mechanical engineering, ergonomics, ideation, industrial design, product development consulting, animation, computer simulation, video presentation, web design, design and manufacture of job specific tools, fixtures, custom robotic systems for various industries, as well as the ideation and conceptual development of custom class II medical devices.

Director of Engineering (Consultant), 10/2005 - 09/2008**Treadwell Corporation - Wilmington, USA**

- I began as an engineering advisor and was responsible for conceptual development and detail design of five iterations of a human-powered, preventative health machine.
- This included preparation of patent drawings and technical description of components for the patent application process.
- I supervised the manufacturing and assembly of prototype machines.
- I was engaged in the creation of the preliminary business plan, and the researching and qualifying of vendors for production quantities.
- [Http://www.treadwellness.com](http://www.treadwellness.com)

Ergonomics Advisor (Sub-Contractor), 06/2007 - 07/2008**Robins Air Force Base - Warner Robins, USA**

- As a subcontractor to the USAF, I provided industrial ergonomics, manufacturing engineering surveys and assessments for Air Force maintenance areas and aircraft hangers.

- Preparation of reports to indicate the areas of concern and corrective recommendations were made for improvement.
- I was responsible for conceptual development and detail design of custom maintenance equipment for implementation on various weapon systems.
- Animated presentations for team leaders, supervisors and commanders were provided.

Engineering Advisor (Consultant), 08/2005 - 01/2007

Emertech, Inc. - Hampstead, USA

- As an engineering advisor, I was responsible for conceptual development and detail design of a custom agricultural machine which deploys a hydroponics system for field crops.
- I supervised the manufacturing, assembly, and the field testing of prototype machines.
- In addition, I was in charge of preparation of presentations for vendors, investors and potential customers, as well as the researching and qualifying of vendors for production quantities of the final product.

Engineering Advisor (Consultant), 07/2002 - 08/2003

Amersham Health - Apex, USA

- As an engineering advisor, I was responsible for ideation and concept development of a custom in-hospital machine which manufactures and dispenses a gaseous drug product for medical diagnosis.
- My duties included collaboration with the engineering director, mechanical and electrical engineers, and research physicists at the company's research facility in Durham, NC.
- I provided 3D CAD models and renderings as the primary project deliverables and transferred these to the customer's strategic partner for manufacturing of physical prototypes.

Product Development Engineer, 11/1999 - 05/2002

Pelton & Crane - Charlotte, USA

- I was hired as a Product Support Engineer to support the manufacturer of existing products.
- I supervised product assembly during implementation of new procedures, and new product designs.
- I championed product cost reduction, focusing on alternate manufacturing methods and simplifying assembly processes.
- The coordination of engineering changes between operations in Charlotte, and several affiliated divisions located in Oregon was my responsibility.
- In the role of Product Development Engineer, I worked on Industrial Design and Conceptual Development of new dental products that went to market.
- This included the creation of 3D CAD renderings as well as physical models of proposed new products.
- [Http://www.pelton.net](http://www.pelton.net)

Electro-Mechanical Engineer, 08/1997 - 10/1999**IKA - Laboratory, Analytical and Process Technology - Wilmington, USA**

- In this engineering position, I supported the manufacturing of small bench-top laboratory products, such as magnetic stirrers, hot-plates, mixers and shakers.
- I designed assembly tooling and fixtures and supervised assembly personnel in the use of these tools.
- I designed every component of laboratory products including pc boards, housings, enclosures, ceramic hot plates, heating elements, electric motors and drive trains.
- 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.
- I created 3D renderings and physical models of proposed new products.
- [Http://www.ika.net/](http://www.ika.net/)

Design Engineer, 04/1996 - 06/1997**Ergotech, Inc. - Danbury, USA**

- For this company, my responsibilities were conceptual development and detail design of multi-axis work positioning equipment.
- I was tasked with cost reduction and quality improvement of several of the company's existing products.
- I achieved this by alternate material selection and by using alternate methods of manufacturing.
- 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 traveled to existing customers' facilities to provide technical support and training.
- I called on prospective new customers to give sales presentations.
- I designed a new company Logo, and catalog artwork.
- [Https://ergotronix.com/](https://ergotronix.com/)

Project Engineer, 04/1992 - 04/1996**Preferred Engineering Corporation - Danbury, USA**

- As a project Engineer, I was tasked with detail design and creation of manufacturing drawings of custom remotely-operated underwater equipment for use in nuclear power plants.
- I worked on-site at nuclear plants to provide technical support and supervision in the use of the equipment.
- When designing the equipment, I applied quality assurance procedures as they applied to the project.
- I also created operating and maintenance manuals.

- [Http://www.preferredengineering.com/](http://www.preferredengineering.com/)

Mechanical Designer, 07/1989 - 04/1992

ISB Products, Inc. - Watertown, USA

- In this role as mechanical designer, my responsibilities included, design of aluminum extrusions, sheet metal enclosures, machined parts and weldments.
 - I also created pc board circuit artwork from electrical schematics.
 - I created all manufacturing, assembly drawings, catalog artwork and installation manuals for all the company's products.
 - [Http://www.isblite.com](http://www.isblite.com)
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EDUCATION

Mechanical Design Certificate, Mechanical and Electrical Design

Porter And Chester Institute - Watertown, CT