Patrick J. Lingane

Creative problem solver with an intuitive and hands-on sense of systems and geometry.
Highly perseverant when faced with tough challenges.
Clear and concise writer with broad mechanical design and leadership experience.

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patrick@lingane.com ● 650-465-0418 (nights/weekends)

Skills

●●●●● Abaqus FEA, MATLAB, SolidWorks, CAD
●●●●○ Machining, rapid prototyping, and welding
●●○○○ Electrical circuit design
●●●●● Writing and communication skills
●●●○○ Project management
●●●●● Microsoft Word, Excel, PowerPoint, SharePoint, Office 365
●●○○○ C++, Java, JavaScript, CSS
●●○○○ Spanish

Education

2009-2010 **Cornell Univ.** Ithaca, NY
Masters of Engineering in Mechanical Engineering

- Concentration in Mechatronics (robotics, dynamics and controls)

2005-2009 **Union College** Sch'dy, NY
B.S. in Mechanical Engineering

- Magna Cum Laude
- Engineering term abroad to University of La Salle, Mexico City

Honors / Achievements

- Tau Beta Pi (engineering)
- Pi Tau Sigma (mech. engineering)
- Sigma Xi (scientific research)
- Engineer in Training
- Eagle Scout

Personal

I am proficient in **Spanish**. I enjoy the **outdoors**, **swing dancing**, and making household gadgets on my **3D printer**.

Work Experience

2017 – current **Naval Nuclear Lab, KAPL** Schenectady, NY
Senior Engineer, Innovation Program

- Administered programs to solicit innovations from employees and provide test space, funding, and mentoring
- Coordinated and assisted with internal conferences, design competitions, innovation labs, and networking
- Project managed a 4 year effort with a core team of 5 people to establish the use of unmanned vehicles (drones), including engagement with several federal agencies, safety, security, cyber-security, and legal personnel. This was the first use of wireless systems on site.
- Built several attractive websites using SharePoint / HTML

2011 – 2017 **Naval Nuclear Lab, KAPL** Schenectady, NY
Mechanical Engineer

- Designed a pressure boundary part for nuclear applications
- Specified complex drawings with GD&T, welds, and NDT requirements
- Analyzed (FEA, Matlab, Excel) several parts of this 100+ part magneto-mechanical dynamic assembly for stress, fatigue, brittle fracture, etc., and wrote 200 page reports.

Other Experience and Projects

- Volunteer mentor – mechanical design, project management, and manufacturing, First® Tech Challenge, Niskayuna, NY, 2012-2016
- Intern – designed, built and tested mechanical and electrical test fixture for medical device for ears, Acclarent, Inc (a J&J company), 2011
- Intern – designed, modeled and built mechanical systems for thermo-fluidic processes, Nanosolar, Inc, 2008-2009 (summers)
- Work study machinist & welder, Cornell University, 2009-2010
- Work study machinist, Union College, 2005-2009
- Masters Project – Designed and programmed a genetic optimization algorithm to control a physical system, Cornell University, 2010
- Senior Project – Designed, manufactured, and analyzed a robotic dragonfly using dynamic similarity, Union College, 2009
- Optional High School Senior Project – Designed and built a working AM radio transmitter, San Francisco Waldorf High School, 2005