

JON PETERSON

408 S. Harrison St., Hugoton, KS 67951 | 620-518-3686 | mroweital@gmail.com | PQSensing.com

Architectural Draftsman | Engineering Technician | Acoustics | AI-Assisted CAD | Quantum Sensing Concept Development

PROFESSIONAL SUMMARY

Architectural drafting, engineering support, acoustics, and independent technical development professional with 20+ years of practical experience producing buildable drawings, documentation, models, technical plans, and validation roadmaps. Skilled in AutoCAD LT, Google SketchUp, field measurements, CAD/CAM documentation, acoustical consulting, client coordination, technical writing, and AI-assisted productivity workflows. Current independent work includes PQSensing.com, a precision-interferometry and quantum-sensing concept venture centered on Noise-Stationary Locking for robust interferometer control.

TECHNICAL SKILLS

AutoCAD LT | Google SketchUp | Construction documents | Floor plans, elevations, sections, details, schedules | Field measurements and as-builts | CAD/CAM | PRO/E exposure | Bills of material | Acoustical/theatre consulting | Sound-system CAD drawings | AV equipment evaluation | Technical writing | AI-assisted drafting and coding workflows | Quantum sensing concepts | Optical interferometry | DSP/control concepts | Logic Pro music production

PROFESSIONAL EXPERIENCE

PQSensing.com, Hugoton, KS | *Current Independent R&D Venture*

Founder / Inventor / Independent Technical Developer

- Develop and maintain a lean precision-interferometry venture focused on Noise-Stationary Locking (NSL), a control concept for Mach-Zehnder, cavity, and quantum-enhanced interferometers.
- Prepare non-confidential technical materials, concept diagrams, validation plans, pitch materials, and partner-facing summaries for PQSensing.com.
- Frame validation around a low-cost tabletop Mach-Zehnder interferometer data sprint comparing conventional power locking against normalized noise-objective locking under controlled jitter and disturbance.
- Integrate independent study in quantum physics concepts, quantum sensing, optics, photonics, interferometry, measurement noise, DSP, dark-port injection, squeezed-state concepts, and coherent receiver ideas with practical engineering documentation.
- Use CAD discipline, acoustics background, coding/AI tools, and organized technical writing to move from theory to diagrams, test plans, and reproducible analysis planning.

Media+Architecture, Hugoton, KS | *Jan 2010 - Present*

Contract Architectural Draftsman / CAD Technician

- Work as a self-employed contract drafting professional for regional architects, builders, owners, and construction stakeholders.
- Draft residential and commercial building plans in AutoCAD LT and use Google SketchUp for 3D studies and visualization as needed.
- Produce floor plans, elevations, sections, details, schedules, revisions, coordination drawings, field measurements, and as-built documentation.
- Support construction projects from smaller local improvements to larger residential and commercial scopes, with budgets from roughly \$50,000 to \$5 million.
- Provide practical structural-layout support and specialized member sizing coordination within drafting/engineering support responsibilities.
- Use AI-assisted research, coding, file organization, and workflow automation to improve drafting productivity and technical problem-solving.

Valley Engineering, Hastings, NE | *Aug 2007 - Jan 2008*

Engineering Technician

- Produced engineering documentation and computer-aided drawings using PRO/E and CAD/CAM software.
- Created bills of material, supported product/design documentation, and contributed to engineering design tasks.

Johnson Troillet Architecture, Holiday Island, AR | *Sept 2005 - Mar 2006*

Architect Intern

- Supported vehicle dealership, residential, church, and commercial projects through design research, CAD drafting, field measurements, and production drawings.
- Contributed to architectural documentation and coordination from early design research through measured drawing tasks.

Engineering Dynamics International, St. Louis, MO | *Mar 2002 - Sept 2003*

Staff Engineer

- Worked for an acoustical/theatre consulting firm; duties included project management, acoustical modeling, technical documentation, consulting, and client relations.
- Supported performance-space and technical acoustics work requiring coordination, communication, and applied engineering judgment.

Acoustical Design Group | *June 2000 - July 2001*

Engineer Intern

- Worked part-time during school and full-time in summer as an acoustical consultant intern.
- Generated CAD drawings of sound-system designs, evaluated audio-visual equipment, and supported architectural-acoustics projects.

University of Kansas, Kansas City, MO / Lawrence, KS | *Summer 1998 - 1999*

HABS Scholarship Team Member

- Selected for the Recording and Representing Historic Structures Scholarship; documented the Old New York Life Building in downtown Kansas City, Missouri.
- Produced measured technical drawings, field notes, and precision photographs in accordance with the Historic American Buildings Survey program for archival submission to the Library of Congress.

ADDITIONAL TECHNICAL & CREATIVE WORK

Self-Taught Musician / Home-Studio Producer, Hugoton, KS | *Ongoing*

Guitar, Bass, Drums, Keyboard, Recording & Production

- Self-taught multi-instrument musician with long-term practice on guitar, bass, drums, and keyboard.
- Record and produce music using Logic Pro, applying acoustics, signal flow, arrangement, tracking, editing, and mix problem-solving.
- Use disciplined self-education across music, coding, technical writing, and physics study to build practical capability without waiting for perfect conditions.

EDUCATION

University of Kansas, Lawrence, KS | *1996 - 2002*

B.S., Architectural Engineering, Acoustics Emphasis

- EIT Certification (Engineer in Training).
- Member of ASA, ASHRAE, and KU Athletic Club.

Hugoton High School, Hugoton, KS | *1992 - 1996*

Diploma

- Final GPA: 3.8.
- Member of Marching Band, Cross Country Team, Basketball Team, and Baseball Team.

AWARDS & MEMBERSHIPS

- Scholarship Winner '98 and '99: University of Kansas HABS / Recording and Representing Historic Structures.
- HABS drawings received honorable mention for the Charles E. Peterson Prize.
- Runner Up: Acoustical Society of America Student Design Competition.
- Member, Mensa.