

Michael Harris

Project Structural Engineer

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SUMMARY

Dedicated civil engineer bringing over five years of experience in structural design and project management. Assisted local municipalities and commercial clients with contract construction plans, specifications, and estimates for various structures, including bridges and low-rise buildings. Proficient in RISA-3D and Eneclac, applying established design methodologies like ASD and LRFD for reliability and safety. Strong communicator, fostering collaboration within project teams while maintaining alignment with objectives and regulatory standards. Eager to contribute my expertise to a forward-thinking team committed to excellence.

EXPERIENCE

Structural Engineer

Mason & Associates 📅 June 2021 - Present 📍 Troy, MI

Guided multiple municipal projects as a structural engineer, focusing on compliance with state regulations and standards. Collaborated closely with stakeholders throughout project life cycles, ensuring designs met client expectations and adhered to budget constraints.

- Developed comprehensive construction plans for sanitary and civil structures, ensuring strict adherence to regulations.
- Optimized project efficiency by collaborating seamlessly with multi-disciplinary teams during design phases.
- Elevated proposal competitiveness by preparing detailed bid documents and cost estimates that set realistic project expectations.
- Implemented proven design methodologies such as LRFD in calculating structural loading, promoting safety.
- Conducted analytical tools analyses using RISA-3D and MathCad to secure optimum design solutions.
- Maintained continuous dialogue with clients, cultivating trust and aligning project outcomes with their visions.

Junior Structural Engineer

Greenfield Engineering Group 📅 March 2019 - May 2021 📍 Warren, MI

Provided support in designing civil structures, aiding in successful completion of diverse building projects. Offered critical assistance to senior engineers, reinforcing skills in structural methodology and compliance.

- Contributed to developing documentation for low-rise and specialty structures, ensuring code compliance in all designs.
- Enhanced communication among project teams, streamlining workflow through effective coordination initiatives.
- Participated in assessments to validate structural integrity, thereby upholding safety and performance standards.
- Utilized software platforms Eneclac and LEAP Bridge Enterprise to assist in foundational analysis and reinforcement design tasks.
- Actively engaged in project meetings, providing insights on engineering practices to guide overall strategies.

Engineering Intern

Structural Engineering Consultants 📅 January 2018 - December 2018 📍 Detroit, MI

Supported senior engineers in practical design scenarios, developing foundational skills crucial to structural analysis. Engaged in collective discussions focused on improving techniques and achieving project goals.

- Assisted in the compilation and preparation of essential calculations and technical reports for review.
- Collaborated in creating project documentation, ensuring all outputs conformed to industry standards.
- Visited project sites to assess conditions firsthand, enriching practical understanding of structural elements.
- Gained proficiency in various engineering software, enhancing practical knowledge applicable in later roles.
- Engaged in workshops centered around next-gen engineering developments, expanding capabilities beyond conventional practices.

LEADERSHIP & AWARDS

- Achieved 'Best Design Project' recognition at the 2022 Michigan Engineering Awards for innovative bridge solutions.
- Received 'Outstanding Team Collaboration Award' from Mason & Associates for elevating project efficiencies across multiple portfolios.

EDUCATION

Bachelor's Degree in Civil Engineering

University of Michigan 🎓 GPA: 3.6 📅 2017 📍 Ann Arbor, MI

Coursework: Structural Analysis, Geotechnical Engineering, Construction Management, Material Science

CERTIFICATIONS

- Registered Professional Engineer (P.E.) 📅 2019
- LEED Green Associate 📅 2020

TECHNICAL SKILLS

- **Structural Engineering Software:** RISA-3D, Eneccalc, LEAP Bridge Enterprise
- **Project Management Tools:** Microsoft Project, Trello, Asana
- **Office Software:** Microsoft Word, Microsoft Excel, Google Docs
- **Communication Platforms:** Slack, Teams, Zoom
- **Design Methodologies:** LRFD, ASD, LFD
- **Regulatory Standards:** AASHTO, ASTM, OSHA
- **Documentation Tools:** AutoCAD, Revit, Bluebeam
- **Analysis Methods:** Finite Element Analysis, Linear Static Analysis, Dynamic Analysis
- **Field Surveying Equipment:** Total Station, Levels, GPS Instruments
- **Time Management Techniques:** Eisenhower Matrix, Gantt Charts, Kanban Boards

SKILLS

- Structural Engineering
- Project Management
- RISA-3D
- LEAP Bridge Enterprise
- Eneccalc
- MathCad
- Microsoft Word
- Excel
- Collaboration
- Technical Writing
- Bid Documentation
- Compliance Standards
- Design Methodologies
- Cost Estimation
- Construction Planning
- Communication

PROFESSIONAL AFFILIATIONS

- Active member of the American Society of Civil Engineers (ASCE), participating in local community outreach programs.
- Volunteered as a mentor for junior engineers through the Michigan Engineering Society, promoting professional growth.

LANGUAGES

- English (Native)
- Spanish (Intermediate)

ADDITIONAL INFORMATION

Work Status : Authorized to work in United States. No sponsorship required.

REFERENCES

AVAILABLE ON REQUEST