

# ALI FLOWERS

## SENIOR STRUCTURAL ENGINEER

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### STRENGTHS

- Problem-solving**  
Addressing structural challenges drives attentiveness. Clients applaud capabilities in responding swiftly to concerns when designs go awry.
- Communication Skills**  
Skillfully engaging clients in discussions builds trust. Technical topics break down into relatable ideas, bridging gaps.
- Team Collaboration**  
Fostering teamwork cultivates success in projects. Peers benefit from collaborative brainstorming sessions towards optimal solutions.
- Technical Leadership**  
Leading junior talents through complex tasks enriches the environment. Mentoring fosters growth not only for them but also for the entire team.
- Attention to Detail**  
Accuracy shapes structural design integrity. Consistent reviews prevent errors while nurturing a reputation for reliability.

### SKILLS

Structural Analysis Steel Design

Concrete Design

Project Management SAP2000

MathCad RISA 3D

Technical Documentation

Regulatory Compliance

Sketching/Drafting

Blueprint Preparation

### SUMMARY

Experienced structural engineer contributing over 7 years of expertise in the design and enhancement of electrical substations. Proficient in conducting structural analysis, steel, and concrete design, complemented by a solid background in preparing precise technical documentation. Customer collaboration enhances project quality while adherence to safety standards ensures reliable outcomes. Skilled in leveraging advanced engineering software for innovative solutions and efficiency improvements. Excited to join Innovative Engineering Solutions and support impactful projects that meet client needs effectively.

### EXPERIENCE

#### Senior Structural Engineer

Innovative Engineering Solutions 📅 January 2024 - Present 📍 Baltimore, MD

As a Senior Structural Engineer, responsibilities involve leading the evaluation, analysis, and design of structural systems. Performance centers on ensuring designs align with regulatory standards while harnessing technical aptitude.

- Lead structural analysis and concrete member design for substations with a focus on IBC and AISC compliance.
- Produce and refine technical specifications and documents, driving accuracy within tight deadlines.
- Engage directly with clients, translating technical language into actionable insights and recommendations.
- Guide junior engineers by fostering collaborative learning environments around structural design techniques.
- Conduct site visits to oversee construction alignment with engineering specifications and promptly address challenges.
- Utilized MathCAD and SAP2000 for intricate calculations, optimizing workflows and enhancing accuracy.

#### Structural Engineer

Future Engineering Group 📅 March 2020 - December 2023 📍 Washington, DC

This role encompassed applying engineering fundamentals to propose effective design improvements across diverse projects with a keen focus on best practices.

- Engineered upgraded structural systems applicable to light industrial facilities, maintaining integrity per relevant codes.
- Collaborated cross-functionally with teams to produce integrated creative solutions, significantly improving operational safety.
- Authored comprehensive engineering reports conveying complex findings, resulting in expedited project approvals.
- Performed diligent review of plans and calculations, addressing discrepancies and advocating viable adjustments.
- Participated in stakeholder engagements to gather feedback, refining designs as needed through consultations robust in client interaction.
- Facilitated team workshops to acclimate peers with evolving software tools, driving advancements in efficiency.

#### Junior Structural Engineer

Engineering Innovations Inc. 📅 June 2016 - February 2020 📍 Rockville, MD

Commencing as a Junior Structural Engineer, rapidly acquired skills in structural design and became involved in practical application throughout various stages of project execution.

Site Inspection Client Engagement

Design Evaluation

Material Selection

Risk Assessment

## LANGUAGES

English Native

Spanish Intermediate

## MY CAREER



● Senior Structural Engineer at Innovative Engineering Solutions (2.5 Years)

● Structural Engineer at Future Engineering Group (3.8 Years)

● Junior Structural Engineer at Engineering Innovations Inc. (3.7 Years)

- Assisted in developing designs for electrical substation components, gaining foundational hands-on knowledge in engineering principles.
- Created technical drawings using RISA 3D and SAFE, underlining contributions toward critical project milestones.
- Executed studies analyzing material behavior, influencing enhancements in design methodologies integrated across projects.
- Supported teams by preparing essential documentation encompassing architectural calculations, expediting approval processes.
- Worked alongside project managers, ensuring engineering activities remained aligned with project timelines and budget constraints.
- Engaged in continuous learning initiatives aimed at building competence specifically around structural software applications.

## LEADERSHIP & AWARDS

- Outstanding Employee Award, Innovative Engineering Solutions, 2025
- Best Project Execution Award, Future Engineering Group, 2022

## EDUCATION

### Bachelor's Degree in Civil Engineering

University of Maryland 🎓 GPA: 3.8 📅 2016 📍 College Park, MD

*Coursework: Structural Analysis, Concrete Design, Material Behavior, Environmental Engineering*

## CERTIFICATIONS

- Professional Engineer (PE) 📅 2021
- Certified Structural Engineer 📅 2022

## TECHNICAL SKILLS

- **Engineering Software:** MathCad, STAAD PRO, SAP2000, SAFE, RISA 3D, RISA Floor
- **Codes and Standards:** IBC, AISC, ASCE 7, ACI 318
- **Documentation Tools:** Microsoft Word, AutoCAD, Revit
- **Analysis Techniques:** Finite Element Method, Load Analysis, Structural Modelling
- **Construction Coordination:** Site Assessment, Field Supervision, Contractor Liaison
- **Quality Assurance:** Statistical Process Control, Design Criteria Verification
- **Field Studies:** Material Testing, Data Collection, Research Analysis
- **Project Management Tools:** Trello, Asana, MS Project
- **Environmental Considerations:** Sustainability Assessments, Waste Management Procedures
- **Software Education:** Training Sessions, Webinars, Workshops

## PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers (ASCE), Member since 2019
- National Council of Examiners for Engineering and Surveying (NCEES), License Holder since 2021

## ADDITIONAL INFORMATION

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

## REFERENCES

AVAILABLE ON REQUEST