

Joaquin Garner

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SUMMARY

Assistant Vice President and **mechanical engineering** leader with 13 years of experience delivering building systems for **mission critical** and **data center** facilities. Leads cooling, HVAC, air distribution, chilled water, heating water, heat rejection, and building automation controls design from early requirements through construction administration. Coordinates architects, contractors, owners, vendors, manufacturers, and multidisciplinary teams around clear technical decisions, coordinated drawings, specifications, schedules, budgets, and proposals. Applies mechanical codes, existing condition surveys, **Computational Fluid Dynamics** airflow studies, and international standards when project needs call for them. Mentors engineers through calculations, system selection, documentation, field observations, and design issue resolution. Brings Professional Engineer registration and a collaborative approach that supports reliable facility performance, strong client communication, and high quality project delivery.

EXPERIENCE

Assistant Vice President, Mechanical Engineering

February 2022 - Present

Redwood Critical Facilities

Austin, TX

Leads mission critical mechanical engineering across cooling, HVAC, hydronic, **heat rejection**, controls, client delivery, and multidisciplinary coordination. Guides engineers, technical decisions, proposals, budgets, schedules, documentation, field observations, and **construction administration** for complex facility work.

- Led data center cooling design using hydronic analysis, improving coordination across critical facility disciplines.
- Directed supply, return, and exhaust systems through calculations, specifications, and **mechanical** code reviews.
- Coordinated drawings with architects, contractors, owners, vendors, and manufacturers during project delivery.
- Resolved client **design issues** through focused meetings, technical decisions, schedules, budgets, and proposal reviews.
- Mentored engineers through calculation reviews, system selection, documentation standards, and field observations.
- Applied **building automation** concepts and **Computational Fluid Dynamics** studies for critical airflow decisions.

Senior Mechanical Project Manager, Mission Critical Design

June 2018 - January 2022

Lone Star Thermal Design

Dallas, TX

Managed mechanical project delivery for mission critical facilities, balancing **technical development**, client coordination, team mentoring, budgets, schedules, proposals, and construction support. Guided coordinated mechanical systems from design development through field resolution.

- Managed **chilled water** and **heating water** design for mission critical cooling and heat rejection systems.
- Developed **air distribution** solutions covering supply, return, and exhaust requirements for critical environments.
- Coordinated multidisciplinary drawings and specifications with owners, contractors, architects, vendors, and manufacturers.
- Led **client meetings** that clarified technical decisions, design risks, schedules, budgets, and project priorities.
- Trained engineers through calculation reviews, system selection, documentation practices, and construction administration.
- Used building automation concepts and **Computational Fluid Dynamics** analysis to guide airflow decisions.

Mechanical Project Engineer, Building Systems

July 2015 - May 2018

Bluebonnet Building Engineering

San Antonio, TX

Delivered mechanical engineering for commercial and **mission critical** building systems, supporting design calculations, documentation, coordination, client activities, field observations, and construction administration. Contributed technical judgment across cooling, hydronic, controls, and heat rejection work.

- Delivered HVAC design support for **cooling**, heat rejection, **hydronic**, and building automation systems.
- Prepared supply, return, and exhaust layouts using calculations, specifications, and mechanical code requirements.
- Coordinated design documents with **architects**, **contractors**, owners, vendors, and internal engineering disciplines.
- Supported proposals, budgets, schedules, client meetings, and resolution of engineering design issues.
- Reviewed calculations and system selections while supporting engineer training and documentation consistency.
- Applied **Computational Fluid Dynamics** findings to airflow decisions for critical facility environments.

Mechanical Engineer, Building Systems

June 2013 - June 2015

Mesa Building Systems

Fort Worth, TX

Supported mechanical building systems design through calculations, coordinated documentation, field observations, existing condition surveys, construction administration, and technical collaboration. Contributed to cooling, air distribution, hydronic, controls, and heat rejection solutions.

- Supported **HVAC** design calculations for cooling, hydronic, heat rejection, and **building automation** systems.
- Developed supply, return, and exhaust solutions under senior engineer review and mechanical code guidance.

- Assisted drawing coordination with architects, contractors, owners, vendors, and equipment **manufacturers**.
- Contributed to **proposals, schedules**, budgets, client discussions, and technical issue resolution.
- Supported field observations, existing condition surveys, documentation reviews, and **construction administration** activities.
- Applied airflow analysis concepts to improve mechanical decisions for critical building environments.

PROJECTS

Mission Critical Cooling Program 📅 2022

Led coordinated cooling, hydronic, heat rejection, air distribution, and controls development for complex mission critical facilities.

Computational Fluid Dynamics Airflow Studies 📅 2019

Applied interior and exterior airflow analysis to support mechanical decisions, equipment placement, and critical environment performance.

LEADERSHIP & AWARDS

- Professional Engineer registration recognized for mechanical engineering practice in Texas, earned in 2018.
- Assistant Vice President appointment recognized leadership across mission critical mechanical engineering and client delivery.
- Senior project management responsibility recognized sustained ownership of proposals, budgets, schedules, and technical outcomes.

EDUCATION

Bachelor of Science in Mechanical Engineering

2013

Texas A&M University GPA: 4.0

College Station, TX

Coursework: Thermodynamics, Fluid Mechanics, Heat Transfer, HVAC Design

CERTIFICATIONS

- Professional Engineer, Texas 📅 2018
- Mechanical Engineering License, Texas 📅 2018

TECHNICAL SKILLS

- **HVAC Systems:** Cooling systems, air distribution, exhaust systems
- **Hydronic Systems:** Chilled water, heating water, pumping systems
- **Heat Rejection:** Cooling towers, heat exchangers, condenser water
- **Building Automation:** Automatic controls, control sequences, monitoring systems
- **Airflow Analysis:** Computational Fluid Dynamics, interior airflow, exterior airflow
- **Mechanical Codes:** Mechanical code review, code compliance, equipment requirements
- **Project Delivery:** Proposals, budgets, schedules
- **Construction Support:** Construction administration, field observations, existing condition surveys
- **Design Documentation:** Drawings, specifications, technical deliverables
- **Stakeholder Coordination:** Architects, contractors, owners
- **Equipment Coordination:** Vendors, manufacturers, equipment selection
- **Engineering Leadership:** Mentoring, training, technical reviews

SKILLS

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|---------------------------|-----------------------|--------------------------------|----------------------|
| • Mechanical Engineering | • Chilled Water | • Computational Fluid Dynamics | • Client Leadership |
| • Mission Critical Design | • Heating Water | • Mechanical Codes | • Project Scheduling |
| • Data Center HVAC | • Heat Rejection | • International Standards | • Engineer Mentoring |
| • Air Distribution | • Building Automation | • Construction Administration | |

PROFESSIONAL AFFILIATIONS

- Professional engineering collaboration with architects, contractors, owners, vendors, and manufacturers across facility projects.
- Multidisciplinary design coordination with internal engineering teams supporting clear decisions and dependable project delivery.

LANGUAGES

- English (Native)
- Spanish (Intermediate)

ADDITIONAL INFORMATION

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

REFERENCES

AVAILABLE ON REQUEST