



Exponent[®]
Engineering & Scientific Consulting

Keats Hua

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Professional Profile

Mr. Hua specializes in project and program management services throughout various phases of construction projects, including estimating, bid and change order analyses, schedule maintenance and oversight, project planning, project quality control, and construction dispute analyses. He analyzes large volumes of data center construction bid proposals, develops standardized operating procedures and performs cost database maintenance. Mr. Hua also supports lean implementation in the development of data analytics frameworks and estimation processes. Mr. Hua has experience managing construction crews to accomplish work on schedule and under budget. His ability to incorporate effective and detail-oriented methodologies results in successful project execution.

Prior to joining Exponent, Mr. Hua obtained his master's degree in Civil and Environmental Engineering, from the Engineering and Project Management program at the University of California, Berkeley where he focused on lean construction methods and project process planning. Mr. Hua conducted research contributing to the development and evaluation of the Work Density Method used to level workloads across trades in construction processes. In that work, he focused on accessing the time-cost tradeoff application by applying workspace zoning for takt planning to find the optimal solution to the unbalanced work density problem. Mr. Hua earned his bachelor's degree from University of Illinois, Urbana-Champaign where he majored in construction management and structural engineering, and worked on projects involving wind engineering research, seismic design, and structural system design for concrete and steel structures.

Academic Credentials & Professional Honors

M.S., Civil and Environmental Engineering, Berkeley University of California, 2021

B.S., Civil and Environmental Engineering, University of Illinois, Urbana-Champaign, 2020

Licenses and Certifications

LEED Accredited Professional

Prior Experience

Graduate Student Researcher, UC Berkeley

Project Engineer Intern, Helix Electric

Research Assistant, University of Illinois at Urbana Champaign

Project Experience

Data Centers

- Implemented and managed estimation support for a worldwide data center infrastructure construction program with a \$1B+ project portfolio. Conducted bid analyses and presented them in RFP review meetings for client teams at over 20 data center sites. The analyses provide tailored comparisons that enable clients to be more well-informed and data-supported in vendor negotiations, achieving significant cost avoidance.
- Developed and updated project-specific target estimates to provide baseline comparisons, and predictive target estimations to forecast bidder's performance by analyzing historical data.
- Successfully implemented the Lean approach in developing and utilizing the tableau dashboard for bid analysis to eliminate repetitive processes and automate the analysis framework with enhanced efficiency.
- Maintained the RFP database by managing the automatic ingestion process to streamline the bid analysis process and improve data integrity for client's repository.
- Conducted analyses on local wage rates and productivity to produce relative factors of labor productivity and costs for the client's data center locations informing the development of an estimating tool model.
- Developed and maintained process documents to standardize long-term operating procedures including dashboard bid analysis process, RFP bid auto-ingestion process, target estimation creation process, and submission and analysis tracker maintenance.

Healthcare

- Provided project management and project control services on two commercial healthcare projects. Was responsible for preparing weekly project schedule updates, status reporting, material releases, specification updates, and design drawings throughout the project lifecycle.
- Managed documentation such as submittals, RFIs, change orders, warranty, as-builts, O&M, and commissioning processing with contractor and vendor partners.
- Performed quantity takeoffs for initial cost estimation and reviewed financial reports, invoices, and backup documents to ensure contract compliance and validate forecasts.
- Managed daily field crew operations and assisted superintendents with quality control. Produced weekly reports to monitor and assure safety management.

Commercial

- Supported the development and analysis of a claim dispute of a hotel project, on behalf of the owner, for delay and damages related to weather. Conducted investigation on schedules and developed as-planned vs. as-built graphics to assess responsibility for impacts on the project schedule.