

Exponent®
Engineering & Scientific Consulting

Kapil Shah

Senior Associate | Construction Consulting
Oakland
+1-510-907-5870 | kshah@exponent.com

Professional Profile

Mr. Shah's construction industry experience is in preconstruction and planning, project controls, and design engineering on infrastructure, ports and maritime, and oil and gas projects. His five years of professional experience has equipped him with skills in project estimation, P6 scheduling, front-end planning and project setup, bid management, process standardization, cost forecasting, and data analysis. Leveraging his pre-construction know-how, analytical ability, design engineering background, and business acumen, he successfully collaborates with clients in markets in refineries, ports and maritime, and industrial sectors.

Prior to Exponent, Mr. Shah worked internationally with an ENR top-ranked design firm and the world's largest geotechnical contractor. He was heavily involved in the preconstruction and project controls work of multi-million-dollar design-build projects. His key responsibilities included bid preparation, cost estimation, analysing unit costs, productivities and cycle times, cash flow analysis, contract review, risk assessment, subcontractor management, site logistics planning, preparing scope of work spreadsheets, and setting up proposals for future bids. Additionally, he collaborated with cross-functional stakeholders to streamline communications and information workflows and improve progress monitoring process. On his projects, Mr. Shah undertook the tasks of designing job logic, developing work breakdown structure, and creating and managing P6 schedules. His analytical skills and efficiency-oriented mindset led him to develop spreadsheets for similar projects, comparing as-planned vs as-built costs, computing key project data such as actual material wastage and risk factors, to mention a few.

Mr. Shah earned his M.S. in Civil Engineering from the University of Illinois Urbana Champaign, with a focus in Construction Engineering Management and certification in Data Science. On his academic projects, Mr. Shah implemented and performed earned value management, line of balance scheduling, P6 scheduling, resource analysis, time-cost trade off analysis, and 4D modelling to measure progress and improve project performance. He honed his data optimization skills in multi-attribute utility theory, linear programming, and analytic hierarchy process to help construction stakeholders make informed decisions in the planning and construction phases. He implemented various machine learning models to predict construction unit cost of a bridge. Mr. Shah's interest in applications of AI in construction led him to engage with various start-ups providing services in production monitoring and tracking and safety monitoring. He also took courses in construction data modelling and visual data analytics which exposed him to BIM-based compliance checking.

Mr. Shah applies his combined knowledge and interests in construction engineering management and data science to his project controls and project management work, optimizing and maximizing successful project delivery outcomes.

© 2026 Exponent, Inc. All Rights Reserved

Academic Credentials & Professional Honors

M.S., Civil Engineering, University of Illinois at Urbana-Champaign, 2023

B.Tech., Civil, Symbiosis International University, India, 2017

Academic Appointments

Awarded Research Assistantship from Agricultural & Biological Engineering, UIUC, 2023

Awarded Teaching Assistantship from Technology Entrepreneur Center, UIUC, 2023

Prior Experience

Teaching and Research Assistant, UIUC, 2023

Preconstruction Engineer, Jacobs, Middle East, India Business Unit, 2021-2022

Preconstruction Engineer, Keller Group PLC, India, 2018-2021

Design Engineer, Maxroof, India, 2018

Professional Affiliations

AACE International

Project Experience

Geotechnical Engineering and Construction - Preconstruction Engineer

Key Markets: Oil & Gas, Industrial, Water, Ports and Maritime.

Performed project bidding, quantity takeoff and cost estimation, project planning and P6 scheduling. Undertook thorough site visits and prepared site logistics plans. Reviewed scope of work spreadsheets against construction plans and detailed specifications, prepared tender summary and RFIs and participated in pre-bid meetings. Reviewed contract terms conditions, assessed risk factors, and estimated and budgeted risks. Performed commercial and cash flow analysis in coordination with design team. Performed data analysis of key project matrix - unit cost, productivity, cycle time, and unit costs to improve jobsite processes and project profitability. Practiced project lifecycle management and facilitated due diligence of projects. Collaborated and determined strategies on bids with Procurement, Operations, Vendor, Design, and Health, Safety, Environmental and Quality (HSEQ) teams.

Infrastructure Construction – Preconstruction Engineer
Key Markets: Infrastructure, Ports and Maritime
Supported strategic pursuits and proposals in infrastructure market, performed what-if scenario analysis and cash flow forecasting. Automated process to manage and track change orders with reduced turnaround time. Developed standardized forms, tools and templates to ensure consistency in project data. Performed data management and analytics to drive valuable insights.

Pre-Engineered Buildings (PEBs) – Design Engineer
Prepared fabrication drawing using AUTOCAD, designed pre-engineering buildings using STAAD.

Collaborated with clients to develop and refine proposed building scope. Implemented checklists and erection methodologies to ensure sustainable construction of PEB structures.