

AI SYSTEMS ▪ COMPUTATIONAL DESIGN ▪ ARCHITECTURE

BIEL PITMAN

Intelligent systems for the built environment, deployed to production. 18+ years of architecture at the world's largest firms behind them.

BIEL AT ARCHIFICIALS.COM ▪ BIELPITMAN.COM ▪ AUSTIN, TX

ROI OPTIMIZER

Cloud engine binding every square meter of high-rise geometry to live financial data. Programmatic distribution and ROI recalculate in the browser as the design moves.

Tested on Austin + Tokyo market data ■ real-time optimization

APEX

Computational design framework for mixed-use towers. Code, structure, program, and climate run as live constraints inside generation, not as checks after it.

78% solar gain reduction (Singapore test) ■ 10+ validated configurations per site

YIELD COPILOT

An AI financial analyst inside the design process. Natural language questions against BIM geometry, RSMeans cost data, and a trained valuation model.

91% R² valuation ■ answers in under 20s ■ \$480K savings surfaced in test

Live demos and full case studies: archificials.com/solutions

ASSET INTELLIGENCE

Property valuation model trained on 182,241 Boston records. Screens acquisitions in milliseconds from observable features alone, no assessment data required.

90.8% R² ■ 3.8% error on a live listing test

INTEGRATIVE PERFORMANCE

Multi-team performance data, normalized to one scale and pushed into native Revit gradients, tags, and schedules. The model reports its own health.

92 models aggregated ■ 5 disciplines on one 0-1 scale

MENTOR

Multi-agent AI tutoring system built exclusively for each institution. Measurable learning outcomes, institutional knowledge that stays in-house.

Enterprise knowledge retrieval ■ higher education

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Block 16 Dubai, UAE ■ workplace tower with hanging garden amenity levels



Cluster Z Dubai, UAE ■ bridged towers with environment-reactive facade



Creekside 18-A Dubai Creek Harbour, UAE ■ twin residential towers in the new district

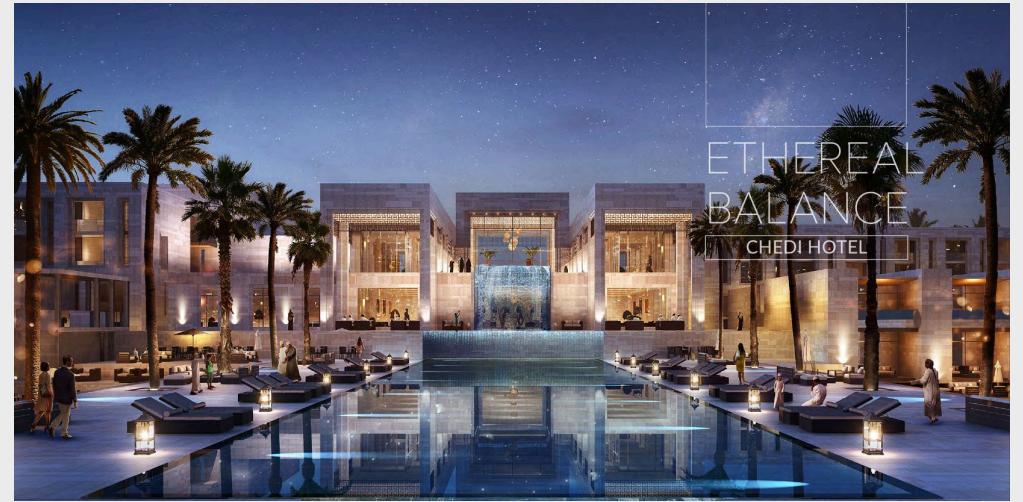


RAH Residential UAE ■ site-specific strategy across 6 typologies

02.3 Hospitality



Address Hotel Marassi, Bahrain ■ hotel and serviced apartments, modular sea-view facade



Chedi Hotel Ras Al Hadd, Oman ■ 200 keys plus 50 club villas in untouched coastline



Barwa Bank HQ Lusail, Qatar ■ flagship headquarters with autonomous louvered facade



Paul Smith Concept Store Retail ■ brand aesthetics infused into every architectural element

After 18+ years directing large-scale projects and teams for the three largest companies in the industry, one lesson stood out: technology adoption and true operational optimization are very different things. That realization became Archificals.

Founder & Principal ■ Archificals Austin, US, 2025 to present

Associate Studio Director ■ Gensler Austin, US, 2020 to 2024

Director of Operations ■ Arqui9 London, UK, 2019 to 2020

Senior Associate ■ 10 Design Edinburgh, UK, 2018 to 2019

Lead Designer ■ Perkins&Will Dubai, UAE, 2015 to 2018

Project Architect ■ AECOM Abu Dhabi, UAE, 2013 to 2015

Project Architect ■ PAD Manama, Bahrain, 2011 to 2013

EDUCATION

Master in AI for Advanced Computational Design, IAAC, 2025
 AI for Leaders, McCombs UT Austin, 2023
 M.Arch, ULPGC, 2011
 Eng. in Construction and Architecture, U. Brescia, 2008

CREDENTIALS

RIBA ■ ARB ■ COAC ■ AACA ■ LEED GA

NUMBERS

18+ years, 3 continents
 11 competition award wins
 20+ person studio directed at Gensler
 6 proprietary AI engines shipped

LET'S BUILD
TOGETHER

[biel at archificals.com](mailto:biel@archificals.com)

FULL INTERACTIVE PORTFOLIO WITH LIVE DEMOS: BIELPITMAN.COM