

SURYAKIRAN PRABHAKARAN

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Sustainability specialist with 8 years of industry work experience, bringing technical depth in building performance analyses, lifecycle assessment, and material health evaluation. I coordinate and track sustainability metrics across project phases, from early phase iterative studies through building certification documentation by working closely with design teams, and consultants.

EDUCATION

University of Pennsylvania, Stuart Weitzman School of Design | Philadelphia, PA
Master of Science in Design - Environmental Building Design

Jul 2019 - Dec 2020

Manipal Academy of Higher Education, Faculty of Architecture | Manipal, India
Bachelor of Architecture

May 2011 - Jul 2016

CERTIFICATIONS

WELL Accredited Professional (WELL AP) | International WELL Building Institute | 2022

Healthier Materials and Sustainable Building Certificate | The New School | 2024

LEED Green Associate | U.S. Green Building Council | 2021

Registered Architect | Council of Architecture - India | 2017

PROFESSIONAL EXPERIENCE

KieranTimberlake | Philadelphia, PA

Sep 2021 - Present

Researcher - Building Performance

RESEARCH EXPERTISE & KNOWLEDGE SHARING

- Provided expertise on setting sustainability targets for 10+ projects, conducting benchmark analyses and early-phase performance studies to align client aspirations with measurable energy, carbon, water, and material health metrics
 - Conducted building performance analysis for 15+ projects studying peak energy loads, daylighting, glare control, thermal comfort, and solar access using ClimateStudio and Ladybug Tools to test design options and advise teams on facade and program strategies during early phases
 - Assessed pedestrian wind comfort and facade downdraft conditions through CFD analysis using Autodesk Forma and Eddy 3D, informing massing strategies and occupant comfort
 - Conducted whole building lifecycle assessments using Tally and product-level GWP comparisons with EC3 for 8+ projects, advising design teams on low-carbon material selections and structural systems that reduced project carbon footprints
 - Advanced firm's sustainability commitments by researching emerging practices in circularity and supply chain equity, developing internal guidelines and frameworks informed by evaluation of product certifications, Design for Freedom Toolkit, Common Materials Framework, and LEED Social Equity credit requirements

- Evaluated materials for human health impacts across multiple product categories, assessing chemical hazard data, worker safety, and product transparency and optimization labels to advise project teams on specification that met both performance and health criteria
- Evaluated building performance analysis tools (Pollination, ClimateStudio) and product tracking tools (Acelab, Sustainable Minds, BuildingEase), testing functionality and efficiency against workflow needs and led tool adoption through internal training sessions, and developing implementation guidelines for design teams

PROJECT COORDINATION & EXTERNAL ENGAGEMENT

- Served as Coordinating Researcher on 3 projects, consolidating research on site-specific environmental factors and facilitating goal-setting workshops with design teams to establish project sustainability goals, continued to track these goals across project phases ensuring that deeper investigations were carried out to inform design decisions
- Supported business development efforts by developing and presenting sustainability strategies in client interviews, connecting firm's technical capabilities to client's climate aspirations
- Coordinated LEED certification documentation, Living Building Challenge materials compliance, and AIA Design for Excellence Framework implementation with design teams and consultants, and prepared narratives
- Contribute to AIA Materials Pledge Working Group, bringing industry insights into firm strategy while advancing the firm's commitment through reporting and implementation of Acelab product tracking library across all current projects
- Represent firm externally through lectures (UPenn, Temple University), sustainability publications, and active participation in AIA working groups, elevating KT's thought leadership profile

University of Pennsylvania, Center for Environmental Building & Design | Philadelphia, PA

Sep 2019 - Sep 2021

Research Associate

- Conducted preliminary life cycle assessment of bio-based polymer development using SimaPro software for NSF-funded project investigating self-morphing building materials, collaborating with multidisciplinary team of material scientists, chemists, and structural engineers
- Developed real-time energy monitoring dashboard using QlikView, enabling facility managers to track building performance data and identify optimization opportunities across campus portfolio

Kumar Consultants Architects | Bangalore, India

Sep 2016 - Jun 2018

Project Architect

- Presented design development proposals to clients for commercial and residential projects, incorporating feedback into design refinements and developing construction documentation drawing sets
- Managed construction administration for single-family residential project, conducting site visits to verify compliance with construction documents, reviewing contractor RFIs, and coordinating resolution of field conditions with consultants

TEACHING EXPERIENCE

University of Pennsylvania, Weitzman School of Design | Philadelphia, PA

2021 - 2022

Part-Time Lecturer: Environmental Building Design Research Studio (Summer 2021)

Part-Time Lecturer: Bioclimatic Design Studio (Fall 2022)

SOFT SKILLS

Building Performance: ClimateStudio, Ladybug Tools, TallyLCA, EC3, LBNL tools (THERM, Window), Grasshopper/Rhino

Data Analytics: Python-Pandas, Microsoft Excel, ArcGIS, QGIS

Visualization: Adobe Creative Suite (Photoshop, InDesign, Illustrator), Microsoft PowerPoint, Tableau