Peterson Dayan, Ph.D., MSc., M.ASCE

Dallas, TX 75234
Phone: +1 (832) 658-0571
dayan@petersondayan.com
https://www.petersondayan.com/

Qualifications Profile

Peterson Dayan is a professional engineer (from Brazil) with experience in transportation projects including planning, modeling, and traffic engineering analysis. He has used GIS, AutoCAD, MicroStation, TransCAD, Synchro, SimTraffic, PTV Vissim, HCS, and Projectwise to perform analytical tasks, conceptual traffic control, traffic projections, travel demand models, and operations studies. Mr. Dayan has been working as a consultant on several TxDOT highway projects, as well as other higher education institutions, health campuses, and local governments.

For over 12 years (recognized by NCEES) as a senior civil engineer Mr. Dayan was responsible for plans, specifications and estimates (PS&E), and related documents, for various projects in rural and urban environments. Mr. Dayan has developed schematic designs, environmental documents, and studies to support feasibility studies and schematic work. He has conducted public involvement, worked on permit procurement, data collection and analysis in Geographic Information System (GIS), and performed capacity analysis, traffic simulations, safety analysis, and 3D modeling.

He is currently the engineer responsible for the Traffic Operational Analysis Report at Bridgefarmer & Associates, Inc., holding TxDOT 1.7.1 Traffic Demand Modeling; 1.9.1 Geographic Information System (GIS) and Data Analysis; 4.6.1 3-D Visualization and Animation Services - Pre-certification.

Education

Mar 2018 – Feb 2023 **University of Brasilia (UnB)**
Doctor of Science, PhD in Architecture and Urban Planning
Brasilia, Federal District, Brazil

Aug 2016 – Feb 2018 **University of Brasilia (UnB)**
Master of Science, Master in Architecture and Urban Planning
Brasilia, Federal District, Brazil

Sep 2012 – Jun 2014 **Getulio Vargas Foundation (FGV)**
Master of Business Administration, MBA in Project Management
Rio de Janeiro, Rio de Janeiro, Brazil

Aug 2001 – Dec 2009 **University of Brasilia (UnB)**
Bachelor of Science, Bachelor of Science in Civil Engineering
Brasilia, Federal District, Brazil

Jan 1995 – Dec 1999 **Federal Institute of Education, Science and Technology of Goias (IFG)**
Technical Education, Technical of Surveying
Goiania, Goias, Brazil

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Thesis/Dissertation

Peterson Dayan: U*rban Form and Spatial Dispersion of Population in Cities*. 02/2023, Degree: **Ph.D. in Architecture and Urban Planning**, Advisor: Prof. Dr. Rômulo José da Costa Ribeiro.

Peterson Dayan: *Spatial Configuration and Urban Mobility: a case study of the Federal District*. 02/2018, Degree: **Master in Architecture and Urban Planning**, Advisor: Prof. Dr. Rômulo José da Costa Ribeiro,

Peterson Dayan: *Strategic Projects Office Implementation for the Public Organization - EPE*. 12/2014, Degree: **MBA in Project Management**, Advisor: Prof. Dr. Bento Alves da Costa Filho, FGV, Brazil.

Peterson Dayan: *Highway Capacity to Frontage Roads Implementation*. 12/2009, Degree: **Bachelor of Science in Civil Engineering**, Advisor: Prof. Dr. Paulo Cesar Marques da Silva, University of Brasilia, Federal District.

Professional Experience

Jul 2022 – present **Senior Traffic Engineer**
Bridgefarmer & Associates, Inc., Department of Traffic Engineering, Dallas, Texas
Professional Engineer (PE), Travel Demand Modeling, Geographic Information System (GIS) and Data Analysis, 3-D Visualization and Animation Services
Contract Position: Traffic Engineer, Working hours (weekly): 40, Full-time job

Dec 2013 – Jun 2022 **Director of Transportation Engineering (PE)**
NDT Engineering and Technology Ltd, Department of Civil Engineering, Brasilia, Brazil. Professional Engineer (PE), Head of Department and Project Manager.
Contract Position: Partner, Working hours (weekly): 30, Full-time job

Jun 2002 – Oct 2020 (retired) **Civil Engineer (PE), Police Officer**
Military Police of the Federal District, Department of Civil Engineering, Brasilia, Brazil. Professional Engineer (PE), Project Manager and Geoprocessing Analyst.
Contract Position: Public Server, Working hours (weekly): 30, Full-time job

Teaching Experience

Aug 2017 – Sep 2020 **Professor**
IESB University Center, Department of Civil Engineering, Brasilia, Brazil
Professor of the Civil Engineering course, IESB - West Campus and the Architecture and Urban Planning course, IESB - South Campus
Contract Position: Professor, Working hours (weekly): 20, Part-time job

Research Experience

Aug 2016 – Feb 2023 **Researcher**
University of Brasilia, Department of Technology in Architecture and Urban Planning, Brasilia, Federal District, Brazil
Contract Position: Master and Ph.D. candidate in Architecture and Urban Planning, Working hours (weekly): 20, Part-time job

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Projects

Highway: (SH) 360 WA#1 - from (IH) 30 to SH 183, Tarrant County, Texas. CSJs: 2266-02-150, 0364-05-041
Jul 2022 – Present

Associated with Bridgefarmer & Associates, Inc.
The work consists of providing corridor studies including preliminary engineering services for development of a corridor alternative analysis, conceptual alternative and geometric design schematics, environmental documents/studies in support of the schematic work, public involvement, data collection analysis, drainage studies, conceptual traffic control, traffic projections, traffic engineering and operations analyses and intelligent transportation systems (ITS) preliminary design, 3-D modeling for the study area that extends along SH 360 from IH 30 to SH 183 including the interchange area extending along SH 183 from Main Street to County Line Road.

Highway: (SH) 360 WA#2 - from SH 183 to SH 121, Tarrant County, Texas. CSJ: 2266-02-158
Jul 2022 – Present

Associated with Bridgefarmer & Associates, Inc.
The work consists of providing corridor studies including preliminary engineering services for development of a corridor alternative analysis, conceptual alternative and geometric design schematics, environmental documents/studies in support of the schematic work, public involvement, data collection analysis, drainage studies, conceptual traffic control, traffic projections, traffic engineering and operations analyses and intelligent transportation systems (ITS) preliminary design, 3-D modeling for the study area that extends along SH 360 from SH 183 to SH 121.

Highway: (SH) FM 730 from SH 199 to SH 114, Tarrant and Wise Counties, Texas.
CSJs: 0312-04-036 & 0312-05-033
Jul 2022 – Present

Associated with Bridgefarmer & Associates, Inc.
The work consists of providing corridor studies including preliminary engineering services for development of a corridor alternative analysis, conceptual alternative and geometric design schematics, environmental documents/studies in support of the schematic work, public involvement, data collection analysis, conceptual traffic control, traffic projections, traffic engineering and operations analyses and intelligent transportation systems (ITS) preliminary design, and 3-D modeling for the study area that extends along FM 730 from SH-199 to SH-114 (approximately 16.9 miles) located in Tarrant and Wise counties within the State of Texas. The project corridor consists of analyzing improvements to existing and proposed cross street intersections, drainage, bicycle and pedestrian accommodations, two-way left turn lanes and the overall safety features of the roadways.

Highway: (US) 287 WA#1 - From US 67 to BUS 287R North, Ellis County, Texas. CSJs: 0172-05-127, 0172-13-008
Jul 2022 – Present

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The work consists of providing preliminary engineering services for development of a design schematic, environmental documents/studies in support of the schematic work, public involvement, permit procurement, data collection analysis, mitigation and remediation, monitoring, drainage, conceptual traffic control, traffic projections, traffic engineering and operations including traffic simulations and 3-D modeling for the US 287 corridor, from US Highway (US) 67 to Business (BUS) 287R North of Waxahachie approximately 6.71 miles, located in Ellis County, Texas.

Highway: (US) 287 WA#2 - From Boyce Road to Cooke Road, Ellis County, Texas. CSJ: 0172-08-103
Jul 2022 – Present

Associated with Bridgefarmer & Associates, Inc.
The work consists of providing preliminary Engineering services for development of a design schematic, environmental documents and studies in support of the schematic work, public involvement, data collection and analysis, mitigation and remediation, monitoring, conceptual traffic control, traffic projections, traffic Engineering and operations including capacity analysis, traffic simulations, safety analysis, and 3-D modeling for the US 287 corridor, from Boyce Road to Cooke Road, approximately 1.40 miles, located in Ellis County, Texas.

Highway: (US) 287 WA#3 - From SH 360 to Old Fort Worth Road, Ellis County, Texas.
CSJs: 0172-04-049, 0172-13-009
Jul 2022 – Present

Associated with Bridgefarmer & Associates, Inc.
The work consists of providing preliminary engineering services for development of a design schematic, environmental documents/studies in support of the schematic work, public involvement, data collection analysis, mitigation and remediation, monitoring, conceptual traffic control, traffic projections, traffic engineering and operations including traffic simulations and 3-D modeling for the US 287 corridor, from East of SH 360 to West of Old Fort Worth Road, approximately 4 miles; and from West of Old Forth Worth Road to West of US 67, approximately 0.2-mile, located in Ellis County, Texas.

Highway: (US) 67 - from the Brazos River to Lake Pat Cleburne, Somervell and Johnson Counties, Texas.
CSJs: 0422-03-080, 0259-04-041, 0259-03-059
Jul 2022 – Present

Associated with Bridgefarmer & Associates, Inc.
The work consists of providing preliminary engineering services for the development of a design schematic, environmental documents/studies in support of the schematic work, public involvement, data collection analysis, conceptual traffic control, traffic projections, traffic engineering and operations including traffic simulations and 3-D modeling for US 67 from the Brazos River to Lake Pat Cleburne located within the state of Texas.