



CASPER, PHILLIPS & ASSOCIATES

Curriculum Vitae

Name: Dianren (Mike) Zhang, Ph. D., PE

Education: Ph.D., Structural Mechanics
Dalian University of Technology

MS, Mechanical Engineering
Chongqing University

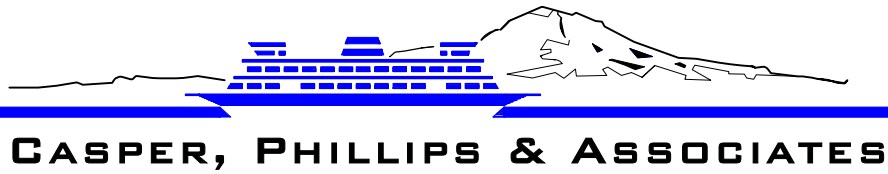
BS, Mechanical Engineering
Shandong Architecture and Civil Engineering Institute

Registration: Mechanical Engineer
Washington
Senior Engineer (Structural & Mechanical)
China

Languages: English and Mandarin Chinese

Highlights:

- ❖ Finished voyage design for several quayside gantry container cranes and ship unloaders.
- ❖ Completed peer review design for quayside gantry container cranes, ship unloaders, and RTG's for various port authorities and manufacturers.
- ❖ Completed the non-linear dynamic time-history analysis and retrofit scheme efforts for the seismic rehabilitation of Boeing's final assembly building complex in Everett, Washington. This is the world's largest building.
- ❖ Used AutoCAD Inventor to complete fully parametric 3D model and converted to 2D shop drawings for crane trolley and other crane components.
- ❖ Coordinated and developed 5 - 50 ton overhead traveling cranes CAD system (design, calculations, and all shop drawings).
- ❖ Developed bridge grab unloader's structural dynamic analysis program with variable mass and variable stiffness.
- ❖ Finished static and dynamic element analysis for 500 t/h and 1250 t/h grab unloader's.
- ❖ Author of several papers related to crane design and CAD technique.
- ❖ Familiar with large number of different types of FEA software and engineering design codes.



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Detailed
Experience:

1999 to
Present CASPER, PHILLIPS & ASSOCIATES

Vice President - Senior Stress Analyst, Mechanical Engineer, Structural & Seismic Design Engineer. Structural design and review of various container cranes, RTG's, ship unloaders, and other steel structures. Building structures seismic retrofits using nonlinear dynamic time history analysis. Crane accident analyses using Algor FEA software. Mechanical design and review of various crane and material handling projects. Assisted clients with field work inspections.

1997 to
1998 UNIVERSITY OF NEVADA, RENO

Postdoctoral visiting scholar. Use of SAP2000 to conduct seismic nonlinear dynamic analysis for steel construction building.

1992 to
1997 DALIAN CRANE WORKS, CHINA

Structural Engineer, Director of CAD Center. Coordinated and led research and design projects and new product development. Responsible for various types of crane structural analyses and optimum design.

1988 to
1992 DALIAN CRANE WORKS, CHINA

Mechanical Engineer. Responsible for overhead traveling crane mechanism and structure design. Trained Engineers for CAD/CAE.

1987 to
1988 DALIAN CRANE WORKS, CHINA

Assistant Engineer. Manufacturing Engineer for fabrication and assembly of cranes. Also assisted Engineering Department with design and drafting assignments.