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Oscar David Renderos Jr.

Objective

Forward thinking individual with a degree in Structural Engineering, with an innovative mindset and an effective communicator with proven interactions between clients and co-workers. Experience in engineering theories, and calculations eager to learn new technologies.

Education and Skills

University of California, San Diego, 2014

B.S., Structural Engineering: *Focus in Civil Engineering*

- Proficient: MS Word, Excel, PowerPoint, AutoCAD, MathCAD, SolidWorks 2013, SAP2000, Matlab, Planswift, Bluebeam
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Relevant Coursework

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|---|------------------------------------|
| • Mechanics of Materials | • Conceptual Structural Design |
| • Thermal and Stress Analysis w/Finite Element Method | • Design of Prestressed Concrete |
| • Structural Analysis I and II | • Design of Structural Concrete |
| • Design of Steel Structures | • Seismic Design of Structures |
| | • Foundations of Materials Science |

Professional Experience

Krost, Baumgarten, Kniss, Guerrero – Senior Engineering Consultant June 2015 – Current

- • Direct communication with Clients and Contractors to obtain information related to acquisition and new construction of various types of buildings.
- • Conduct detailed analysis using ledgers, blueprints, and coordinating physical site inspections
- • Review and prepare reports and schedules supporting findings from analysis.

UCSD Structural Projects

2-Span Pedestrian Bridge

- Proposing a design for a two-span pedestrian bridge required to span over a 5-lane roadway that includes a highway crossing with an inclined column
- Utilizing SAP2000 and SolidWorks 2013 to recreate sections of the bridge to determine adequate dimensions while using 2011 Building Code for Structural Concrete (ACI 318-11) to assure min. requirements are met.
- Bridge layout with an overview of design section properties designed using AutoCAD and AISC Steel Construction Manual used to determine the design components.
- Different load combinations such as live load, dead load and superimposed dead loads were adapted on the slab and girder model using SAP2000 allowing a structural analysis on these models to be identified.

Robotic Crane

- Proposing and constructing a robotic crane capable of loading and unloading various weights from one objective to the next is to be designed, constructed, analyzed, and documented to determine the response the structure has on loadings
- Final concept designed using SAP2000 and used to determine critical members, max moments, shears and deflections
- Virtually designed and simulated using SolidWorks 2014 to create a 3D visualization
- Factors such as amount and cost of materials are noted for a more economical and environmental friendly structure