

Paul J. Kocke, Jr.

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Objective Civil Engineering intern seeking a structural engineering position utilizing my Masters of Science degree, E.I. license, and experience to work toward becoming a Professional Engineer.

Education **Louisiana State University, Baton Rouge, LA** **May 2008**

- Master of Science
- Civil Engineering
- Concentration: Structural Engineering

Louisiana State University, Baton Rouge, LA **May 2006**

- Bachelor of Science
- Civil Engineering
- Concentration: Structures
- GPA: 3.78

Experience **Department of Civil and Environmental Engineering, LSU** **August 2006 – Present**
Teacher Assistant

- *Developed* a finite element model to perform a dynamic analysis of a collision between a vessel and a fender system using ABAQUS.
- *Determined* the feasibility of several fender units by calculating the energy capacity of each unit and the kinetic energy of the vessel.
- *Graded* homework for 150 students each semester for the Statics course.
- *Assisted* advisor by reviewing editing journal articles and reports.

Tindall Corporation, Spartanburg, SC **Summer 2007**
Structural Internship

- *Calculated* load combinations, stresses, prestress loss, moment and shear capacities for prestressed double tee beams.
- *Determined* the necessity of shear reinforcement for a bulb double tee beam by performing a load test on two members to failure.
- *Programmed* Salmons Technologies software to determine the ideal stress, moment, shear, and deflections for the loading stages of the bulb tee load test.
- *Analyzed* the location and number of concrete blocks required to generate the desired moment and shear for the load test.
- *Designed and drew* structural steel supports for the load test beams using the AISC manual.
- *Inspected* concrete beams for cracks and defects in order to maintain quality control.
- *Developed* an excel program to calculate and design prestressed concrete beams.
- *Computed* wall panel connections to foundations using MathCAD.
- *Analyzed* the connections of six shear wall panels to determine the required forces to make the panels act together.

- *Performed* traffic studies and traffic signal design for six parishes.
- *Analyzed* traffic data setting up a 24 hour count device on a road, then downloading the collected data to determine peak hours, vehicle volume per hour, vehicular speed, and vehicle classification.
- *Investigated* peak hour counts to determine the necessity of traffic signals.
- *Completed* speed studies to calculate the speed of the 85th percentile of vehicles to be used to adjust the speed limit of a highway.
- *Designed* traffic signals for intersections in Tickfaw and Kentwood in accordance with DOTD Traffic Design Manual using MicroStation and Synchro along with traffic count data some of which required calculating railroad preemption.

Skills

Computer Skills

Proficient with AutoCAD, Staad.Pro, ABAQUS 6.4, Fortran, MS Office, MathCAD, Maple, MatLab, and Mathematica.

Introduced to MicroStation and Synchro 6.0 from internship with DOTD.

Leadership Skills

Completed several courses in the essentials of team building, team leadership, and effective communication; including Woodbadge, One Minute Manager, Fortune 500 Team Building.

Awards

Graduated Cum Laude, May 2006

Passed Fundamentals of Engineering Exam, October 29, 2005

ASCE Distinguished Civil Engineering Senior Student, March 2006

TOPS Scholarship, 2001-2005

Eagle Scout, December 23, 1996

Memberships

Louisiana Engineering Society, June 2006

Phi Kappa Phi Honor Society, March 2005

Tau Beta Pi, National Engineering Honor Society, April 2004

Chi Epsilon, National Civil Engineering Honor Society, March 2005

Gamma Beta Phi, National Honor and Service Organization, November 2004

LSU American Society of Civil Engineers (ASCE), September 2004

- Fundraising chairman, 2005 – 2006, raised \$3,000 during term of office
- Concrete canoe team, 2005 – 2006, 1st Place Regional Winners 2006

Assistant Scoutmaster, Boy Scout Troop 160, August 2003