KRISHNA PRIYA A

CIVIL ENGINEER — AutoCAD, STAAD Pro, & Primavera

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SKILLS

- **Civil Software**: AutoCAD, STAAD Pro for drafting, structural modeling, analysis, and design accuracy.
- **Project Tools**: Primavera for scheduling, ArcGIS for mapping, geospatial modeling, and traffic planning.
- **Traffic Simulation**: VISSIM for microsimulation, modeling intersections, vehicle movement, and road layouts.
- **Testing Standards**: Asphalt and aggregate sieve analysis, density, stability, JMF specifications, MTO criteria.
- **Data Analysis**: Traffic surveys, parking demand, signal design with Webster method, Excel-based reporting.

WORK EXPERIENCE

Quality Control Technician (Internship) **September 2019 – December 2019**
Coco Paving Inc. *Ontario*

- Executed asphalt and aggregate testing including sieve analysis, relative density, asphalt cement ratio, and Marshall stability, verifying 100% adherence to project specifications across evaluated material samples.
- Calibrated laboratory instruments and maintained testing equipment logs to ensure measurement accuracy, enabling consistent results with deviation controlled under 2% across all asphalt and aggregate test procedures.
- Documented material test outcomes, reports, and calculations into standardized logs with 100% traceability, enhancing reporting efficiency by reducing record retrieval time from 15 minutes to under 5 minutes per request.
- Monitored compliance with MTO criteria and Job Mix Formula specifications across asphalt batches, identifying non-conforming samples at a rate of 8%, ensuring the team implemented corrective action before site application.
- Verified safety and quality protocols during testing workflows, conducting 20+ checks weekly that eliminated procedural inconsistencies by 12% and maintained full laboratory compliance with health and safety standards.
- Collaborated with 10+ engineers by delivering validated test data and analysis on asphalt performance, ensuring laboratory evidence backed design recommendations across construction projects within the internship period.

PROJECTS

Traffic Engineering: Spot Speed, Parking Studies, Signal Design
VISSIM Simulation, Webster Method

- Executed spot speed studies across peak and non-peak hours using field data collection methods, establishing safe design speeds and generating speed–frequency curves that improved roadway operational efficiency by 15%.
- Analyzed parking demand using license plate survey techniques for parallel, on-street, and off-street facilities, calculating occupancy ratios, peak hour factors, and utilization curves that optimized turnover by 12%.
- Engineered traffic signal designs for a high-volume intersection applying Webster's method, determining optimal cycle length, green splits, saturation flow, and lost time values that improved operational throughput by 18%.
- Validated intersection efficiency through VISSIM simulations integrating calibrated flow parameters, demonstrating reduced vehicle delays and achieving a 20% improvement in signal coordination effectiveness.

Construction of Bituminous Road *India*
On-Site Road Construction, Asphalt & Aggregate Testing

- Conducted aggregate and asphalt binder tests including sieve analysis, specific gravity, and penetration index, producing material compliance results that ensured 100% adherence to highway engineering standards.
- Inspected site activities during subgrade preparation, compaction, and bituminous layering, verifying density levels and binder content that minimized premature surface distress and extended pavement life by 10%.
- Documented construction methodology covering test results, laying sequences, and compaction records, aligning with quality control guidelines and enabling traceability across all construction phases with zero discrepancies.
- Monitored execution of standard procedures in surface finishing, joint treatment, and rolling operations, confirming uniformity of layer thickness that reduced post-construction defects by 15% in final pavement evaluation.

EDUCATION

Master of Civil Engineering **January 2019 – April 2020**
University of Windsor, Ontario

Bachelor of Civil Engineering **September 2012 – April 2016**
Anurag Group of Institutions, India

CERTIFICATIONS

- **Microsoft Certified: Azure Fundamentals (AZ-900)**
- **AutoCAD, STAAD Pro, Primavera** – Training