ANJALI KRISHNAMOORTHY

Materials Science Engineer

anjali.krishnamoorthy@email.com • (555) 482-6173 • Pittsburgh, PA
anjalikrishna.com • linkedin.com/in/anjalikrishnamoorthy • anjalikrishna.com/portfolio

SUMMARY

Ph.D.-credentialed Materials Science Engineer with 9 years at Carnegie Mellon and ATI Specialty Materials developing advanced materials for structural applications. Improved high-strength steel performance by 25%, reduced production costs by 15% through alloy optimization, and led failure analysis on $180M structural cases. Expert in materials characterization, FEA, and composite design.

EXPERIENCE

Jan 2019 - Present
Pittsburgh, PA

Senior Materials Science Engineer

ATI Specialty Materials

Led development of advanced structural alloys for aerospace and infrastructure applications.

- Developed new high-strength steel alloy reducing weight by 18% on $42M industrial framing project while maintaining 100% structural performance criteria
- Improved material testing protocol reducing testing cycle time by 30% and increasing characterization throughput by 25% across 4 product lines
- Led FEA-based failure analysis on $180M structural connection litigation; root-cause identification accepted by 3 expert witnesses on both sides
- Mentored 5 junior engineers on SEM/TEM characterization and mechanical testing protocols; 3 advanced to senior roles within 24 months
- Reduced specialty alloy production cost by $1.4M annually through process optimization and yield improvement programs

Aug 2015 - Dec 2018
Pittsburgh, PA

Materials Science Engineer

U.S. Steel Corporation

Conducted materials testing and quality control for structural steel products.

- Developed new structural steel grade specification reducing material costs by 10% on $68M bridge construction program
- Resolved 24 vendor material non-conformance cases through metallurgical investigation; reduced project delay incidents by 95% over 3 years

SKILLS

Materials Characterization (SEM/TEM) | Mechanical Testing (ASTM E8/E466) | Finite Element Analysis (ABAQUS) | Composites & High-Strength Steels | Failure Analysis & Forensics | ASTM / AISC Material Standards | Project Management | Technical Communication

EDUCATION

Sep 2010 - May 2015
Cambridge, USA

Ph.D.

Massachusetts Institute of Technology

Materials Science and Engineering • GPA: 3.8/4.0

Sep 2008 - May 2010
Stanford, USA

M.Sc.

Stanford University

Materials Science and Engineering • GPA: 3.9/4.0