

Career Objectives

- » Provide technical expertise to solve engineering problems in materials, metallurgical, and mechanical engineering
- » Leverage data analysis and statistical methods to develop robust solutions

Work Experience

Staff Engineer Materials Science

Kennametal | Mar 2019–Oct 2019 | Latrobe, PA

- » Conduct R&D for cemented carbides and related materials
- » Document and enhance process parameters for manufacturing

Senior Materials Scientist

Halliburton | Oct 2013–Mar 2019 | Conroe, TX

- » Test and release metal-matrix composite (MMC) materials to save cost and simplify manufacturing processes
- » Advise and mentor team members; provide individual guidance and technical recommendations
- » Develop and manage a comprehensive and aggressive IP strategy for materials and manufacturing
- » Create custom Matlab routines (data mining, image analysis, statistical optimization, bit performance, etc.)
- » Analyze and identify materials, morphologies, and microstructures via microscopy

Academic Reviewer

Various Technical Journals | Oct 2011–Present

- » Conduct article reviews (over 100 to date) for various technical journals

Technical Advisor (*Community Advisory Board*)

The MathWorks | Apr 2016–Present

- » Discuss upcoming features and perform administrative functions for the Matlab Central website

Technology Development Specialist

Pratt & Whitney (UTC), East Hartford, CT | 2011–13

- » Advised engineers in materials, structures, design, project, and management roles
- » Managed budgets (over \$300k) and provided guidance on additional budgets (over \$1M)
- » Developed and implemented a comprehensive and aggressive IP strategy; filed over 50 patent applications
- » Coordinated projects with various additive manufacturing (AM) and plating/electroforming vendors

Doctoral and Post-doc Researcher

Brigham Young University, Provo, UT | 2006–11

- » Published a highly cited review of transient liquid phase (TLP) and partial TLP (PTLP) bonding
- » Developed and documented a novel filtering procedure to identify ideal PTLP bond interlayer combinations

Certification and Education

Professional Engineering License, TX & PA (*Metallurgical and Materials Engineering, Mechanical Engineering*)

PhD, Mechanical Engineering (*Materials Science Emphasis*)

BS, Mechanical Engineering (*Math Minor*)

For additional information, please see my [LinkedIn profile](#) and [CV](#).