

# HANNAH MITCHELL

Cognitive Ergonomics | Industrial Human Factors | Process Improvement  
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Ergonomics and human factors specialist with 12+ years of experience reducing error, improving safety, and redesigning operational processes by addressing the cognitive and physical demands placed on workers. I am uniquely trained at the intersection of cognitive science and Lean methodology, so where most process engineers see workflow problems, I also diagnose the human factors underneath them.

## AREAS OF EXPERTISE

- ▶ Cognitive Ergonomics
- ▶ Task Analysis & Cognitive Load Assessment
- ▶ Root Cause Analysis
- ▶ Lean Six Sigma Green Belt
- ▶ Kaizen
- ▶ Process Mapping & Analysis
- ▶ 5S & Kanban Implementation
- ▶ Observational Research
- ▶ Standard & Instruction Design
- ▶ Usability Testing
- ▶ Requirements Verification

## PROFESSIONAL EXPERIENCE

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### Senior Experience Strategist | Vanguard Group | Malvern, PA

Jan 2023 – Aug 2025

- ▶ Applied cognitive ergonomics and heuristic analysis to identify and resolve error-prone steps and inefficiencies across digital processes.
- ▶ Managed and coordinated multi-team project support according to negotiated timelines and requirements.

### Senior Product and Experience Designer | Exyn Technologies | Philadelphia, PA

Sep 2021 – Aug 2022

- ▶ Applied task analysis and quantitative cognitive load frameworks to evaluate operator processes and identify failure modes before they resulted in safety incidents.
- ▶ Led ground-up redesign of autonomous drone piloting software used in underground mining operations.

### Experience Designer and IT for Manufacturing | Bosch Rexroth Corporation | Bethlehem, PA

Jan 2016 – Jul 2021

- ▶ Designed augmented reality instruction system that replaced paper-based procedures with AR overlays resulting in 80% reduction in assembly line training time from 14 to 2 days.
- ▶ Standardized warehouse material picking operations by applying DMAIC techniques to implementation of Industry 4.0 web application. Reduced delivery times from 8 to 3 days and training times from 10 to 2 days.
- ▶ Performed process control through data analysis, SQL query customization, and report generation
- ▶ Partnered with manufacturing engineers and frontline workers to map current-state processes, identify ergonomic risk factors, and redesign workstations and workflows to reduce physical and cognitive strain.
- ▶ Headed cross-functional improvement projects combining Lean Six Sigma methodology with human factors analysis in order to address both process design and the human behavior patterns that cause errors to recur.

### Jr. Human Systems Integration Specialist | RED-INC, LLC | Lexington Park, MD

Oct 2013 – Oct 2015

- ▶ Led structured comparative cognitive load assessment on F-18 mission scenarios for the U.S. Navy
- ▶ Conducted usability and requirements testing of mission debriefing software for pilots and maintainers

## CERTIFICATIONS & EDUCATION

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### Certifications

- ▶ Lean Six Sigma Green Belt; MSI (Feb 2026)
- ▶ Kanban Implementation Specialist
- ▶ 5S Concepts Certified

### Education

- ▶ B.A., Cognitive Science (Computer Science Minor) — Lehigh University, 2013

*Interdisciplinary study of AI, psychology, neuroscience, anthropology, and cognitive decision-making*

Target Rate: \$50–\$65/hr | Open to contract, direct hire, or temp-to-perm | Available Immediately