

Kaia Ortiz

Ceramic Process Engineer

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SUMMARY

Enthusiastic engineering professional with over two years in process engineering, specializing in ceramic manufacturing. Strong ability to evaluate workflows, equipment, and facility layouts for enhanced efficiency. Collaborative mindset complements technical expertise to optimize production and reduce costs while ensuring compliance with safety regulations. Experience in product development fosters continuous improvement initiatives that elevate quality standards. Proficient in analyzing data to inform decision-making, develop innovative test methods, and support product line growth. Eager to contribute strategic insights and technical skills to BrightTech Innovations, enhancing both product offerings and operational excellence.

EXPERIENCE

Research Assistant

University Research Lab 📅 June 2025 – August 2026 📍 Chicago, IL

Supported ceramic materials research, focusing on innovative manufacturing techniques and enhancing product quality. Collaborated closely with faculty and peers to design experiments, analyze findings, and improve existing processes. This role bridged academic knowledge and practical application within the ceramic industry.

- Conducted extensive research on cost-effective manufacturing methods for advanced ceramic composites.
- Developed testing protocols aimed at improving product formulations, leading to enhanced performance metrics.
- Analyzed experimental data to identify trends, resulting in significant improvements in material quality.
- Collaborated with academic teams, preparing technical reports for presentations at conferences, showcasing innovative developments.
- Maintained awareness of current technologies impacting the ceramics field, contributing fresh insights into project strategies.
- Assisted in compiling grant proposals which successfully secured funding for ongoing research ambitions.

Capstone Project Developer

Academic Project 📅 January 2025 – May 2025 📍 Remote

Led a team in creating a new ceramic product line as part of a comprehensive capstone project. This initiative required meticulous design evaluations, testing methodologies, and collaboration with industry professionals under tight deadlines.

- Directed a cross-functional team in developing products from initial concept through rigorous testing phases.
- Evaluated facility layouts and machine specifications to enhance production efficiencies while lowering costs.
- Set quality benchmarks and crafted automated testing methods ensuring conformity with industry standards.
- Created complete project documentation and effectively communicated outcomes during a presentation to industry experts.
- Engaged with mentors for constructive feedback, applying learnings towards product refinement.
- Utilized statistical software for in-depth analysis of experimental results, translating data into actionable strategies.

LEADERSHIP & AWARDS

- Dean's List Recipient - University of Illinois (2022, 2023)
- Best Presentation Award - Annual Materials Conference (2025)

EDUCATION

Master's Degree in Materials Science

University of Illinois 🎓 GPA: 3.8 📅 2026 📍 Champaign, IL

Coursework: *Ceramics, Materials Processing, Data Analysis, Process Optimization*

Bachelor's Degree in Mechanical Engineering

University of Illinois 🎓 GPA: 3.7 📅 2024 📍 Champaign, IL

Coursework: *Thermodynamics, Fluid Mechanics, Manufacturing Processes, Structural Analysis*

CERTIFICATIONS

- Certified Six Sigma Green Belt 📅 2025
- Certified Quality Engineer (CQE) 📅 2026

TECHNICAL SKILLS

- **Manufacturing Tools:** AutoCAD, SolidWorks, MATLAB

- **Testing Equipment:** Optical Microscope, Scanning Electron Microscope, Mechanical Tester
- **Process Improvement Techniques:** Six Sigma, Lean Manufacturing, Kaizen
- **Data Analysis Software:** Minitab, Python, Excel
- **Project Management Tools:** Trello, Asana, Microsoft Project
- **Quality Control Standards:** ISO 9001, ASTM International, ANSI
- **Ceramic Manufacturing Methods:** Slip Casting, Pressing, Extrusion
- **Collaboration Platforms:** Google Workspace, Microsoft Teams, Slack
- **Document Management Tools:** SharePoint, Confluence, Dropbox
- **Reporting Tools:** Crystal Reports, Tableau, Power BI

SKILLS

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|-----------------------|---------------------------|-------------------------|--------------------------|
| • Process Engineering | • Technical Documentation | • Product Development | • Cost Reduction |
| • Data Analysis | • Manufacturing Methods | • Experimental Design | • Collaboration Skills |
| • Project Management | • Statistical Analysis | • Workflow Optimization | • Research Methodologies |
| • Quality Assurance | • Safety Compliance | • Regulatory Standards | • Presentation Skills |

PROFESSIONAL AFFILIATIONS

- Member, American Ceramic Society - Engaging with industry leaders and advancements.
- Volunteer, STEM Mentorship Program - Promoting engineering education among young students.

LANGUAGES

- English (Native)
- Spanish (Proficient)

ADDITIONAL INFORMATION

Work Status : Authorized to work in United States. No sponsorship required.

REFERENCES

AVAILABLE ON REQUEST