

Dr. Chanel Beebe

<https://www.linkedin.com/in/chanelbeebe>

email address (chanelmbb@gmail.com)

Visionary Research and Education Leader, adept at orchestrating multi-million-dollar research budgets and guiding cross-functional teams. Demonstrated ability to not only transform insights into actionable design principles and innovative solutions but also to impart research skills, nurturing the next generation of researchers and fostering a commitment to human-centric experiences that drive positive change.

SKILLS

Communication:

Webex | Zoom | Google Suites | Microsoft Teams | Microsoft Outlook | Skype

Word Processing, Research & Design:

Microsoft Office Suite | Microsoft Access | Figma | Sketch | Canva | Miro | Bluescape

Data Collection Tools:

Google Forms | SurveyMonkey | Qualtrics | D Scout | UserZoom | DoveTail | Tableau | NVIVO | MAXQDA

Project Management:

Asana | Trello | Todoist | Calendly

EDUCATION

Ph.D., Engineering Education, College of Engineering, Purdue University, West Lafayette, IN

M.S.E., Industrial Engineering, College of Engineering, Purdue University, West Lafayette, IN

B.S.E., Industrial Engineering, College of Engineering, University of Michigan, Ann Arbor, MI

TEACHING EXPERIENCE

University of Michigan, Taubman College of Architecture

2023-Present

Urban Technology Intermittent Lecturer – Design Research

- Taught UT 210: Listening: Design Ethnography Methods, a 2-credit undergraduate course at the University of Michigan, Taubman College - Urban Technology in Winter 2023.
- Developed course objectives focused on exploring Design Research methodologies associated with Urban Technology to translate human experiences and needs into insights and design principles.
- Created a comprehensive toolkit for students, covering Ethnographic Research Preparation, Data Collection, and Data Synthesis and Reporting.
- Facilitated course activities to help students develop and establish their personal and professional identities in Urban Technology.
- Led course discussions on relevant literature and media, promoting engagement in Desk Research.
- Conducted thorough reviews and evaluations of students' Desk Research through a Peer Review process.
- Guided students in conducting interviews with their classmates as part of a Practicum, emphasizing qualitative Design Research and Design Ethnography.
- Supervised and supported students in analyzing the collected interview data and deriving meaningful insights.
- Evaluated students' final presentations, where they showcased their unique perspectives on the in-class interviews and their implications for Urban Technology.
- Communicated with students via email and office hours to provide guidance, address inquiries, and offer feedback throughout the course.

Kapor Center, Computer Science for Detroit Initiative

2022-Present

Lead Facilitator and Consultant

- Guided students in examining computing and technology from diverse perspectives, fostering a sense of innovation, and instilling advocacy for culturally responsive practices in the Detroit Student Leadership program.
- Inspired students to consistently contribute unique ideas and solutions derived from their personal experiences in computer science, enhancing their role as creators and creatives in the field.

- Developed and practiced skill sets related to leadership, community engagement, social research, communication, innovation, and entrepreneurship, fostering a mindset of lifelong learning and community advocacy.
- Contributed to the planning and execution of core activities, including leadership development, team building, and involvement in impactful events such as the Passport to CS/STEM and an augmented reality mural project.
- Led the design and implementation of a pilot project/survey examining perceptions of computer science among DPSCD students, ensuring student voices were at the forefront of the research.
- Introduced innovative curriculum elements, including ethical considerations in computing and reflections on personal experiences in CS courses, contributing to the holistic development of students.

Community Development Advocates of Detroit

2022-2023

Youth Advisory Committee Instructor

- Orchestrated engaging virtual and in-person meetings for the Youth Advisory Council, demonstrating exceptional facilitation skills while working collaboratively with the committee to ensure productive discussions.
- Crafted comprehensive agendas for each Youth Advisory Board meeting, addressing key topics such as agenda development, guest speaker confirmation, and interactive engagement with YAC members.
- Implemented innovative strategies to enhance youth involvement, including text reminders, check-ins, and the development of clear objectives connected to activities and sessions. Fostered an inclusive environment for ideation and planning.
- Successfully managed logistical aspects of in-person meetings, from arranging transportation for YAC members to coordinating meeting space setup/cleanup and ordering food, ensuring seamless execution and participant satisfaction.
- Maintained meticulous documentation of meeting proceedings by consistently uploading notes into Google Drive, facilitating transparency and accessibility of information for all stakeholders.

Detroit Historical Museum, 1967 Perspectives Project

2017 – 2021

Lead Instructor for Detroit Design 2067: Detroit MI

- Developed curricula for a week-long immersion program for HS Juniors and Seniors.
- Conducted research on Detroit History and developed curricula blending historical perspectives with design thinking.
- Coordinated with various museum and community stakeholders to book events and activities for students.
- Managed an informal learning space for 12 high school students.

Purdue University, Multicultural Engineering Programs

Fall 2017 – Summer 2019

Instructor for Multicultural Engineering Program Seminar: West, Lafayette, IN

- Developed curricula for Cultural Hackathon Co-Curricular Experiences.
- Assigned and reviewed student reflections.
- Lead various class sessions around design identity and expectations.
- Managed a classroom of 35 students for two semesters.

Purdue University, Black Cultural Center

Fall 2017 – Summer 2019

Scholar in Residence for Black Thought Collective: West, Lafayette, IN

- Designed curricula for undergraduate students to investigate gentrification patterns across cities within the African Diaspora.
- Facilitated weekly discussions around personal experiences of trauma.
- Brought in guest speakers on Urban Planning and Ethnography to prepare students for a research project
- Guided students through data collection, analysis, and publication process.
- Taught and demonstrated qualitative research process.
- Facilitated the development of 10 student-led research projects.
- Developed programming relevant to black students and their experiences.
- Managed publication of student findings across various platforms, including journals and symposiums

Project SEED, Detroit Branch

Fall 2014-Spring 2017

Mathematics Specialist: Detroit, MI

- Conducted professional development for 50 Detroit Public School Teachers
- Wrote and delivered Socratic lesson plans to 150 3rd – 6th students in advanced mathematics.

RESEARCH EXPERIENCE

Global Detroit

10/2023 – Present

Research Design and Implementation Lead: Detroit, MI (Contractor)

Successfully led community engagement and research efforts for the City of Detroit Immigrant Strategic Plan, collaborating with Global Detroit's team, designing research tools, and ensuring timely project completion, resulting in the plan's successful implementation.

- Collaborated with Managing Director of Global Detroit, and worked closely with all staff members to ensure effective project delivery.
- Provided community engagement and research services in alignment with the accepted RFP proposal for the City of Detroit Immigrant Strategic Plan.
- Developed a comprehensive 64-question survey, distributed it at community engagement events, and conducted thorough data analysis.
- Designed and implemented 12 focus groups, overseeing the entire process from planning to execution, and analyzed the collected data to produce a final report.
- Supported and led various research and community engagement activities, including vetting project communications, representing the project with community stakeholders, designing research tools, conducting surveys and focus groups, data analysis, and reporting.
- Demonstrated exceptional skills in community engagement and research activities, contributing to the success of the City of Detroit Immigrant Strategic Plan.

Vision Investments

11/2023 – Present

Research Designer: Detroit, MI (Contractor)

Successfully led community engagement and research efforts for the City of Detroit Immigrant Strategic Plan, collaborating with Global Detroit's team, designing research tools, and ensuring timely project completion, resulting in the plan's successful implementation.

- Conducted a comprehensive literature review validating the value of coaching, focusing on executives coached by coaches of color, for The Vision Investment.
- Researched and analyzed current literature on coaching efficacy, its impact on personal and professional growth, and diversity and inclusion in coaching.
- Examined studies assessing the perceived value of coaching and identified key success factors in coaching programs.
- Explored the unique contributions and challenges of coaches of color, analyzing their role in executive coaching.

Ford Motor Company, D-Ford

11/2021 – 06/2023

Design Research Lead: Dearborn, MI (Full Time)

As a Design Research Leader, the challenges included managing a significant research budget, gathering meaningful insights, and translating them into actionable design principles and solutions

- Led the planning, development, and implementation of a \$750M research budget, leveraging analytics and insights leading to informed and data-driven decision-making throughout projects.
- Led experience design and prototypes development within a collaborative environment with a cross-functional team of business strategists and designers, resulting in more innovative and differentiated product development approaches.
- Collaborated with internal teams improved knowledge and project perspectives, enhancing the overall project outcomes.
- Developed a Multi-Modal User Experience Research Plan, investigating pain points and industry trends with a data-driven approach.
 - Interfaced with third-party recruiters, exhibiting effective communication while sourcing participants for 57 US interviews, remaining flexible to changing business needs.
 - Conducted market research via focus groups, community engagement events, interviews, user testing, and surveys, triangulating project landing pads with user testing and experience design expertise.
 - Analyzed and synthesized survey results, focus group and interview transcripts, interpreting data to ensure accurate and meaningful insights for rapid prototyping and product roadmap.
 - Translated research insights into design principles, collaborating with internal teams to enhance the project and business POV.
 - Utilized strong problem-solving skills to translate findings into relevant business needs and support product strategy.
- Advocated for the voice of the customer in developing and co-designing products, web-based platforms, and mobile apps.

Greater Good Studio, Research Firm
Research Design Lead: Chicago, Illinois

04/2021 - 11/2021

The challenge of this role was to conduct comprehensive research on barriers to homeownership for black and brown populations in Wisconsin and develop actionable design principles to address these barriers.

- Developed and implemented research methodologies aligned with predicted social science learning outcomes, ensuring study relevance and significance.
- Conducted in-depth research on homeownership barriers, integrating analytics, psychology, and statistics into the research plan.
 - Led 20 virtual research interviews with black and brown homeowners, utilizing qualitative research techniques to gather valuable insights.
 - Organized and facilitated four community brainstorming/research events, using focus groups to co-create innovative homeownership solutions.
 - Cultivated a collaborative environment during the community brainstorming/research events, encouraging open communication and participation.
- Led cross functional teams effectively with an internal team of 4 and an external board of 15 state and local professionals to achieve address industry trends and maximize social impact.
- Led data analytics to uncover user needs and drive product innovation and co-created innovative homeownership solutions through productive community brainstorming/research events allowing users to feel supported and covered in their journeys.
- Developed actionable design principles for addressing homeownership barriers based on coded and synthesized research findings.

National Association of Multicultural Engineering Programs

03/2017 – 09/2018

Thought Leader + Research Scientist: West, Lafayette, IN

The challenge of this role was to develop and implement a comprehensive personalized learning intervention in collaboration with community partners, focusing on problem-solving and project management through the engineering design process.

- Designed and executed research utilizing statistical programming, qualitative research methods, and focus groups to assess the experiences of community partners and the design abilities of students.
- Did extensive networking to build relationships with key stakeholders and users.
- Utilized analytics and attention to detail to develop a professional development program, fostering collaboration between engineering students and corporate representatives.
- Led a team of over 200 students and 20 community partners in the development and implementation of a semester-long course focused on problem-solving and project management.
- Conducted innovative research and implemented a personalized learning intervention in collaboration with community partners, aimed at addressing social problems using the engineering design process.
- Evaluated learning outcomes and conducted program evaluation to improve knowledge and ensure the effectiveness of the intervention.

Mechanical Engineering, Purdue University

08/2016 – 08/2018

Research Lead: West, Lafayette, IN

The challenge of this role was to conduct a comprehensive three-phase qualitative study exploring the values, norms, expectations, and experiences of African Americans within the College of Engineering.

- Developed a comprehensive three-phase qualitative study exploring African American experiences in the College of Engineering, applying strong research design skills with elements of culturally relevant pedagogy and social science.
 - Employed a collaborative approach, fostering productive interactions with participants and colleagues throughout the research process.
- Conducted 12 focus groups and 25 one-on-one interviews with 54 African American students, gathering valuable data for the research project using analytical skills and attention to detail.
- Conducted program evaluation to measure research impact and identify improvement areas.
- Led collaboration with multiple University Departments and Centers to implement campus climate change initiatives based on research findings and programming.

For All a Chace to Engineer Lab, Purdue University

03/2016 - 09/2016

Research Lead: West, Lafayette, IN

- Developed and implemented innovative curriculum for four 9-day Everyday Engineering Camps, fostering real-world problem-solving among 9 to 17-year-olds.
- Utilized differentiated instruction to promote personalized learning in the "Make an Engineer Activity," addressing global engineering challenges.
- Conducted comprehensive research on the impact of informal engineering experiences, employing statistical programming and qualitative methods.
- Demonstrated strong leadership in coordinating successful Everyday Engineering Camps, ensuring seamless logistics and positive experiences for participants.
- Effectively communicated complex research findings with attention to detail through reports and presentations.
- Utilized analytics to extract meaningful insights, contributing to advancements in informal engineering education.
- Committed to program evaluation and continuous improvement, identifying areas for enhancement and promoting engagement among young learners.

Mary Lou Williams Center for Black Culture, Duke University

08/2014 - 11/2014

Research Assistant: Durham, NC

- Utilized qualitative research methods and focus groups to gain valuable insights into the African American student experience, showcasing expertise in psychology and research design.
- Developed a comprehensive outline of the unique needs and challenges faced by African American students within the university community, demonstrating attention to detail and analytical skills.
- Led a university-wide initiative to collect data on African American student satisfaction, demonstrating effective project management and collaboration with diverse stakeholders.
- Applied analytics and statistical knowledge to analyze data effectively, informing evidence-based decisions to improve learning outcomes and enhance the university experience for African American students.
- Demonstrated leadership and innovation in conducting research to address the needs of underrepresented student populations, promoting personalized learning and educational technology integration.
- Employed literacy skills to communicate research findings and insights in a clear and compelling manner, contributing to program evaluation efforts and data-driven improvements.
- Leveraged problem-solving abilities to identify opportunities for enhancing support and resources for African American students, driving positive change within the university community.

University of Michigan, Engaged Advising Learning Grant

08/2013 - 06/2014

Project Coordinator Ann Arbor, MI

- Employed qualitative research methods, including interviews and focus groups, to gain valuable insights into the dynamics of advisor-student relationships, showcasing expertise in research design and psychology.
- Conducted research on student engagement within the classroom, applying statistical analysis and analytics to understand and enhance learning outcomes.
- Developed and implemented a comprehensive rubric, demonstrating attention to detail and analytical skills, to help faculty evaluate and quantify student performance effectively.
- Utilized collaborative and leadership skills to assist advisors in gaining a clearer and more detailed picture of each student's performance, fostering personalized learning and support.
- Leveraged problem-solving abilities to identify areas for improvement and innovation, contributing to the development of educational technology tools and differentiated instruction techniques.
- Demonstrated proficiency in program evaluation and project management, ensuring the successful execution of research initiatives and data-driven improvements.
- Applied literacy skills to effectively communicate research findings, promoting evidence-based decision-making and continuous improvement in the advisor-student relationship dynamics.

Service And Leadership

- Computer Science for Detroit Steering Committee, Member (Kapor Center, 2022-Present)
- Elevate Inclusion Associate & Strategic Partner (2022 – Present)
- CalPoly General Engineering Program Review (2023)
- American Association for Engineering Education, Reviewer (CONECD Annual Conference 2020-Present)
- Detroit Soup: Artist Chair (April 2022-December 2022)
- Engineering Education Graduate Student Association (Purdue University, Secretary (2017-2018), President (2017-2018))
- Mentoring at Purdue Program, Peer Mentor (Purdue University, 2017-2018)
- National Society of Black Engineers, Member (Purdue University, 2015-2018)
- Black Graduate Student Association, Member (Purdue University, 2015-2018)
- Purdue Black Cultural Center: Haraka Writers, Spoken Word Poet, (2015-2017)
- Office of Academic Multicultural Initiatives: Academic Success Partner (2013-2014)
- National Society of Black Engineers (University of Michigan, Vice President (2012-2013), Finance Chair (2011-2012))
- Center for Educational Outreach- Project Inspire: Student Speaker (2009-2012)
- American Association of University Women, National Student Advisory Council (2010-2011)

Awards

- Spirit of Martin Luther King Jr. Learning & Scholarship Award (University of Michigan, – 2024)
- BME Vanguard Award (2023)
- Black Trailblazers in Engineering Fellows (Purdue University, 2021)
- Humanity in Action Detroit Fellow (2019)
- Dissertation Institute Fellow (University of Houston, 2018)
- Ford Foundation Pre-Doctoral Fellowship (2018-2021)
- Leadership in Action Award (Purdue Butler Center – 2017)
- Spirit of Martin Luther King Jr. Leadership Award (University of Michigan, 2014)
- Outstanding Female on Campus (Alpha Phi Alpha Fraternity Incorporated, 2013)
- New Student Achievement Award (University of Michigan, 2009)
- Rogel Match Scholarship (University of Michigan, 2009)
- Gates Millennium Scholarship (Bill Gates Foundation-2009)

Invited Presentations and Seminars

- “Black Professors in STEM Panel” for the University of Michigan Chapter of the National Society for Black Engineers, February 2024 (In Person)
- “Women in STEM Panel - Innovating Minds: Creativity and Experimentation in STEM” for Elevate Inclusion, February 2024 (Virtual)
- “Centering Black Experiences in an Education for Everyone: A Candid Dialogue” at Olin College of Engineering, Faculty Seminar, February 2023 (In Person)
- “Design Thinking Industry Profession Panel” for Kapor Center, April 2022 (in Person)
- "Socially Informed Career Paths in Industrial Engineering" at Cal-Poly San Luis College of Engineering, Industrial Engineering Lecture, April 2022 (Virtual).
- "Social Problem Solving: The Gnosis Method" as part of Purdue Biology Education Virtual Seminar Series: Equality, Social Justice, and Praxis in STEM Learning Spaces, March 2021 (Virtual).
- "History in the Making: Using Design to Create the World You want to See" at Mississippi State University Black History Month Program, February 2021 (Virtual).
- "Intent vs. Impact: Addressing Micro Aggressions" during the Cal-Poly San Luis College of Engineering Lecture Series, December 2020 - May 2021 (Virtual).
- "Expanding Cultures Part II: Beyond Intersectionality" at the Women in Engineering ProActive Network, October 2019 (Virtual).
- "Expanding Cultures: How where I come from informs where I am going and how I will get there" at the Women in Engineering ProActive Network in August 2019 (Virtual).

Journal Publications

- In Preparation: Bednar, D., **Beebe, C.** (2021). Socially Engaged Energy Justice and Design: A practical framework for more Inclusive Access, *Frontiers Energy*
- Holly, J., Hira, A., **Beebe, C.**, Carter, K. (2021). Who gets to engineer?, Countering the Mythology of Inclusion and Wellness in Schooling
- Secules, McCall, Mejia, **Beebe**, Masters, Sanchez-Peña, Svyantek (2021). Positionality Practices and Dimensions of Impact on Equity Research: A Collaborative Inquiry and Call to the Community, *Journal of Engineering Education* (In Press).
- **Beebe, C (2020)**. Emergence and Compassion: A Reflection on Interpersonal Priorities Strategies Within Collaborative Settings, *Purdue Journal of Service Learning*, West Lafayette, IN.
- **Beebe, C.** (2018). They Will Ask You. *Murmurations*, 1(1), 5–7.
 - <https://doi.org/https://doi.org/10.31946/meee.v1.i1.19>

Conference Publications

- **Beebe, M. C.**, & Holly Jr, M. J. Researching Diversity from Multiple, Diverse Perspectives.
- Hira, A., Beebe, C., Maxey, K. R., & Hynes, M. (2018). "But, What Do You Want Me to Teach?": Best Practices for Teaching in Educational Makerspaces (RTP)," In American Society for Engineering Education Annual Conference. Ehsan, H., **Beebe, C.**, Cardella, M. (2017). Promoting Computational Thinking in Children Using Apps, ASEE, Columbus, OH.
- **Beebe, C.**, Hynes, M. (2017). Youth Ages 9-15 Perceptions of Mechanical Engineering by Race and Gender, ASEE, Columbus, OH.
- Holly, J., Joslyn, C., Hira, A., Hynes, M., & **Beebe, C.** (2016). What do you like to do? Exploring pre-college students' career aspirations and perceptions of engineering (Work in progress). In ASEE 2016 Annual Conference. New Orleans, LA.
- **Beebe, C.**, Sarwar, U., Jubelt, N., Hira, A., & Hynes, M. (2016). MAKER: A Game to Make Engineering. In ASEE 2016 Annual Conference. New Orleans, LA.

Conference Presentations

- **Beebe, C.**, Holly, Tolbert, Colquitt. "Do You See Me?: Hypervisible Invisibility #EngineeringWhileBlack", American Society of Engineering Education, Virtual, July 2020.
- **Beebe, C.**, "Service-learning from the perspective of Community Partners" Poster and Exhibition. Purdue Engagement and Service-Learning Summit, West Lafayette, IN, February 2020.
- **Beebe, C.**, "Researching Socially Engaged Design: Community Partner Narratives of Social Change and Agency Building" Ford Foundation Fellow Annual Conference, San Juan, Puerto Rico, October 2019.
- **Beebe, C.**, "Storytelling and Utopia as Resistance to Marginalization of African American Engineers at a PWI" Collaborative Network for Engineering and Computing Diversity, Washington DC, April 2019.
- **Beebe, C.**, "Cultural Hackathon: Development and Considerations" Collaborative Network for Engineering and Computing Diversity, Washington DC, April 2019.
- **Beebe, C.**, "Inclusive Community-Engaged Design" 45th Annual National Society of Black Engineers National Convention, Detroit, MI, April 2019.
- **Beebe, C.**, "Experiences and Learning of Community Partners in Community Engaged Design Settings" 2018 Conference of Ford Fellows: Academic Exchange Session, San Jose, CA, September 2018.
- **Beebe, C.**, "Youth Ages 9-15 Perceptions of Mechanical Engineering by Race and Gender." ASEE 2017 Annual Conference, Columbus, OH, June 29, 2017.
- **Beebe, C.**, "Promoting Computational Thinking in Children Using Apps." ASEE 2017 Annual Conference, Columbus, OH, June 29, 2017.
- **Beebe, C.**, "What do you like to do? Exploring pre-college students' career aspirations and perceptions of engineering." ASEE 2016 Annual Conference, New Orleans, LA, June 24, 2016.
- **Beebe, C.**, "MAKER: A Game to Make Engineering." Poster and Exhibition, ASEE 2016 Annual Conference, New Orleans, LA, June 24, 2016.