

Chanel Beebe

ChanelBeebe.com
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EDUCATION

Purdue University West Lafayette, IN Anticipated Graduation: 2021
Degree: Ph. D. Engineering Education GPA: 3.67
Advisors: Dr. Monica Cardella

Research Question: How do community partners make meaning of community engaged design experiences?

Purdue University West Lafayette, IN Anticipated Graduation: December 2021
Degree: Master's in Industrial Engineering
Advisor: Dr. Bob Kenly

Research Question: What evidence of Systems Thinking present in community engaged design experiences?

University of Michigan Ann Arbor, MI 2014
Degree: B.S.E Industrial and Operations Engineering GPA: 3.066 / 4.0

RESEARCH EXPERIENCE

Purdue University, Black Cultural Center *Fall 2017 – Summer 2019*

Scholar in Residence for Black Thought Collective

- Taught and demonstrated qualitative research process
- Facilitated 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

National Association of Multicultural Engineering Programs, Purdue University *Spring 2017 – Summer 2018*

Thought Leader for Cultural Hackathon

- Developed a professional development intervention that allows engineering students the chance to interface with corporate representatives on projects designed and led by community members
- Developed and Implemented programming with over 200 students and 20 community partners
- Conducted a pilot study with High School seniors to see if social problems could be addressed with the Engineering design process
- Organized Community partner and student needs into a semester-long course where students collaborated with community partners to solve community problems
- Designed and conducted research around the experiences of the community partners and design ability of the students through surveys and interviews

Purdue University, Mechanical Engineering *Fall 2016 – Fall 2018*

Research Advisory Board: TECH-AIDE Grant

- Designed three-phase qualitative study to unpack the values, norms, expectations, and experiences of African Americans across the College of Engineering
- Conducted 12 focus groups, and 25 one-on-one interviews of 54 African American students in Engineering
- Interacted with multiple University Departments and Centers to implement campus climate change through research and programming

Purdue University, FACELab *Spring/Summer 2015*

Research Advisor: Morgan Hynes

- Developed and implemented curriculum for four 9-day Everyday Engineering Camps in which 9 to 17-year-olds engaged with every step of the design process to address problems in their immediate communities
- Developed Make an Engineer Activity in which participants build a model of an engineer using their personal interests and skills to solve global engineering problem
- Conducted research on the impact of informal engineering experiences and activities

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Purdue University, Engineering Explorer's Grant

Fall 2014

Research Assistant under Stephen Hoffmann

- Conducted research on the experience of underrepresented and international students in First Year Engineering teams.
- Developed survey to quantify student experiences in teams based on group dynamics frameworks.

Duke University, Mary Lou Williams Center for Black Culture

Fall 2014

Graduate Research Assistant: Durham, NC

- Conducted informal focus groups to understand African American student experience
- Developed outline of needs of African American students
- Began University-wide effort to collect data on African American Student Satisfaction

University of Michigan, Engaged Advising Learning Grant

2013-2014

Project Coordinator Ann Arbor, MI

- Conducted interviews and focus groups to develop a better understanding of the current state of advisor-student relationships
- Conducted research on student engagement within the classroom
- Developed a comprehensive rubric for faculty to use in evaluating and quantifying student performance
- Helped advisors to see a clearer and more detailed picture of the student's performance

TEACHING EXPERIENCE

Detroit Historical Museum, 1967 Perspectives Project

2017 – Present

Lead Instructor for Detroit Design 2067

- Developed curricula for 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 of 12 high school students

Purdue University, Multicultural Engineering Programs

Fall 2017 – Summer 2019

Instructor for Multicultural Engineering Program Seminar

- 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

- 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 research project
- Guided students through data collection, analysis and publication process

Beebe Arts LLC, Detroit based research and design firm

2015-2017

Research, Arts and Teaching Consultant

- Co-Designed and taught Poetry Workshop for Purdue Theatre Class
- Developed and conducted workshops on Freewriting, Painting, and Vision Boarding
- Taught design to 30 high school seniors via summer and spring break programs

Project SEED, Detroit Branch

Fall 2014-Spring 2017

Mathematics Specialist

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

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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.

INVITED PRESENTATIONS

- **Beebe, C.**, "Social Problem Solving: The Gnosis Method", Purdue Biology Education Virtual Seminar Series: Equality, Social Justice, and Praxis in STEM Learning Spaces, Virtual, March 2021
- **Beebe, C.**, "History in the Making: Using Design to Create the World You want to See", Mississippi State University Black History Month Program, Virtual, February 2021
- **Beebe, C.**, "Intent vs. Impact: Addressing Micro Agressions", Cal-Poly San Luis College of Engineering Lecture Series, Virtual, December 2020 – May 2021
- **Beebe, C.**, "Expanding Cultures Part II: Beyond Intersectionality" Women in Engineering ProActive Network, Virtual, October 2019
- **Beebe, C.**, "Expanding Cultures: How where I come from informs where I am going and how I will get there" Women in Engineering ProActive Network, Virtual, August 2019

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

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- **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

AWARDS AND HONORS

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

SERVICE AND LEADERSHIP

Purdue University

- Purdue Black Cultural Center: Black Thought Collective, Scholar in Residence (2017-2019)
- Engineering Education Graduate Student Association, Secretary (2017-2018), President (2017-2018)
- Mentoring at Purdue Program, Peer Mentor (2017-2018)
- Purdue Black Cultural Center: Haraka Writers, Spoken Word Poet, (2015-2017)
- National Society of Black Engineers, Member (2015-2018)
- Black Graduate Student Association, Member (2015-2018)

University of Michigan

- National Society of Black Engineers: Vice President (2012-2013), Finance Chair (2011-2012)
- Office of Academic Multicultural Initiatives: Academic Success Partner to 6 protégés (Present)
- Center for Educational Outreach- Project Inspire: Student Speaker (2009-Present)
- American Association of University Women, National Student Advisory Council (2010-2011)
- Gates Millennium Scholarship (Bill Gates Foundation-2009)
- Rogel Match Scholarship (U of M-2009)

ENTREPRENEURIAL EXPERIENCE

Beebe Arts LLC, Art & Research Design Solutions

2017-Present

Founder and CEO: Detroit, MI

- Consultant with Detroit Historical Museum to design and implement a 10-Day Immersion Program for High School Seniors to learn about Detroit History and Co-Develop Community Solutions
- Thought leader with the National Association of Multi-Cultural Engineering Programs Advocates to Design a Cultural Hackathon to develop the skill sets and opportunities of Underrepresented Engineers
- Commissioned Art Projects with community groups and individuals
- Develop and Design Publications such as newsletters, poetry books, presentations and flyers
- Mentoring, Coaching and Advising to students of color

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- Poetry Publication Consultation for Young Writers
- Poetic Speaking Engagements for Non-Profit Organizations

PROGRAM CERTIFICATIONS

- Center for Compassionate Systems Awareness, 2021
- Advanced Graduate Teaching Certificate, Purdue University, Center for Instructional Excellence, 2019
- Different Lenses Workshop Series Completion, Purdue University Center for Intercultural Learning, 2019
- Applied Management Principles Program Graduate, Purdue University Krannert School of Business, 2019
- Dissertation Institute Fellow, University of Houston, 2018

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PERSONAL PUBLICATIONS

- Beebe, Chanel (2020) Views from the Inside, Beebe Arts LLC, Detroit, MI
- Beebe, Chanel (2019) Proof, Beebe Arts LLC, Detroit, MI
- Beebe, Chanel (2017) Fractal, Beebe Arts LLC, Detroit, MI
- Beebe, Chanel (2017) Now, Go!, Beebe Arts LLC, Detroit, MI
- Beebe, Chanel (2016) Reveal, Beebe Arts & Ahmad Barber Photography, Detroit, MI
- Beebe, Chanel (2015) Now & Then, Beebe Arts, Detroit, MI

WORK EXPERIENCE

The Boeing Company, *Consumer Aviation Services Lean Enterprises* Summer 2013

Industrial Engineering Intern: Renton, WA

- Completed Shingo training and developed a better understanding of perfected business practices
- Designed and developed a visual management system for managing team projects that was eventually implemented to over 200 employees
- Constructed Values Stream Mapping of change request process and completed root cause analysis to eliminate security issues
- Conducted time studies on Kent Distribution Center Receiving Process
- Facilitated and developed accelerated improvement workshop that decreased receiving time by 50%

Dow Chemical Company, *Hydrocarbons Improvement Team* Summer 2012

Supply Chain Intern: Houston, TX

- Facilitated informational discussions with international teams to gather needs of stakeholders and design informational dashboard
- Reevaluated key corporate processes to streamline workflow by building decision trees and flow charts
- Built a balance sheet to manage \$500 million in Canadian Ethylene sales

Wal-Mart Stores Inc., *Information Systems Department* Summer 2011

International Department Intern: Bentonville, AR

- Developed strategies to successfully integrate a recently acquired company
- Oversaw budgets of \$200 million+
- Interfaced with international groups