

# Pa Chang Vang

651-508-6013 · [vang2432@umn.edu](mailto:vang2432@umn.edu) · [linkedin](#) · [portfolio](#)

## EDUCATION

**University of Minnesota, Twin Cities (UMN)** | Minneapolis, MN

Expected May 2026

*MS Human Factors and Ergonomics* | 4.0/4.0

- **Relevant Courses:** Usability and Human Factors; User Interface Design; Qualitative Research Methods; Quantitative Research Methods & Data Visualization; Wearable Technology, Project Management

**The College of Saint Scholastica (CSS)** | Duluth, MN

Completed December 2020

*BA Psychology* | *Minor in Biology* | *summa cum laude*

## EXPERIENCES

**Graduate Research Assistant** | University of Minnesota

August 2023 - Present

*CoLab Design Research Group*

- Oversaw over 60 A/B usability tests of prototypes with design teams and stakeholders, gathering over 200 survey responses for a 60+ participant sample with a publication at the 23rd annual ACM Interaction Design and Children (IDC) Conference and International Conference of Engineering Design (ICED) 2025
- Analyze and synthesize qualitative data points on NVivo, using deductive and inductive coding for 30 prototype tests
- Conducted a comprehensive literature review by consolidating 100+ literature via qualitative open coding and thematic analysis; designed mixed-method research (interview, field observation, survey) per the Institutional Review Board

**Human Factors Engineering & User Experience Intern** | Medtronic

August 2024 - August 2025

- Co-led 33+ formative usability studies (35+ hrs) of 100+ design concepts with 30+ users across 4 iterative testing rounds, generating insights to improve workflows validated by high usability scores (SUS & Likert Scales)
- Championed the task and use error analysis (UEA) for a new retrieval system of a transcatheter pacing system, collaborating cross-functionally to define critical validation tasks, propose design mitigations, and deliver human factors recommendations
- Executed data synthesis and insight report-outs to inform key design decisions across 6+ cross-functional teams (systems, software, security, quality/reliability/safety, project management, mechanical engineering, procedure)

**Experience Research & Design Intern** | Highmark Health

May - August 2024

- Assisted in exploratory primary and secondary user research for women's health, supporting a total of 29 semi-structured interviews and synthesizing over 200+ data points from qualitative research
- Delivered and designed a qualitative report with actionable insights to key stakeholders and project sponsors, refining qualitative data into jobs to be done (JTBD) for a beta Qualtrics survey to suggest missed business opportunities
- Contributed to a total cost saving of \$300K per year by supporting in-house qualitative and quantitative research with a lead design strategist, senior market research analyst, and principal research strategist

**Product Designer** | Co.Lab

March - May 2023

- Streamlined the design research process and collaborated with two international cross-functional teams to direct the product direction with quick turnaround times, resulting in a successful digital minimal viable product (MVP) of the top 3
- Developed and implemented a user testing plan, including facilitating user interviews of 10+ digital responsive designs, analyzing qualitative user surveys, and conducting prototype usability tests
- Leveraged agile methodology (SCRUM) to guide the product development process within an 8-week sprint through weekly standup meetings and deliverables

**Research Fellowship Intern** | University of Minnesota

May - August 2020

*Neuroimaging for Cognitive Neuroscience Program*

- Developed an experimental method using Python for an emotion-stimuli task and analyzed quantitative data using Intraclass Correlation Coefficient (ICC) analysis within 10 weeks in the Decision-Making Lab
- Presented the research study on emotional differentiation (ED) in the 3rd Annual Summer Research Program 2020

## SKILLS & INTERESTS

**Computer:** Google Suite, Microsoft Office (Excel, PowerPoint), Figma/Figjam, Miro/Mural, Procreate, Visual Studio Code

**Design Skills:** User Research, User Interface Design, Prototyping, HTML & CSS (Web Design)

- **User-centered design methodologies:** User Profile Definition, Cognitive Walkthrough, Task Analysis, Usability Testing, Survey Design, User Interviews, Focus Groups, Observations/Field Studies, Contextual Inquiry, Cognitive Walkthrough, Heuristic Evaluation, Design Thinking, A/B or Concept Testing

**Research Skills:** Literature Review, Experimental Design, Data Collection, Statistical Analysis, Qualitative Data Analysis, Conference Presentation, Technical Writing, Project Management, Research Protocols, Human Factors Evaluation

- Familiarity with relevant regulations and standards, such as FDA guidelines and IEC 62366

**Languages:** English, Hmong (Fluent)