

HENRIËTTA VAN NIEKERK

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OBJECTIVE

I bridge the gap between user needs and product development, ensuring designs are both innovative and functional. Environments where I can create solutions that make a difference are where I aim to further develop my skills in code and design, contributing to pushing the boundaries of technology with a human-centred lens through co-op experiences.

EDUCATION

Bachelor of Interaction Design & Business, University of Waterloo

Expected 2027

- Enterprise Co-op 5k Pitch Winner (2025)
- Velocity Cornerstone Award (2025)
- CEWIL Work-Integrated Learning Award (2025)
- Hack The North (2024)
- Peer Leader, UW Housing (2023)
- Project Manager, UW CUBE (2023)
- President's Scholarship (2022)

Relevant Coursework: Advanced User Experience Design and Research, Global Development and Business, Digital Imaging for Online Applications, Working in Teams and Project Management

SKILLS

Technical Skills UX/UI, AI Prompt Engineering, Python, JavaScript, Java, C++, Adobe Suite, Figma

Soft Skills Empathy-driven Design, Problem Solving, Leadership, Communication, Stakeholder Engagement

EXPERIENCE

Founder & CEO, *Skrimp*

April 2025 - Present

- Launched an AI “sous-chef” that turns weekly grocery flyers into 7-day meal plans; families report \$50–\$100/week savings with zero manual price hunting.
- Built the pricing/substitution engine (budget caps, household-size math, allergies, substitution-aware swaps) that reprices live as flyers change.
- Shipped BYO-recipe import with auto-pricing and one-tap shopping list; stack: Next.js/TypeScript, Node, data pipelines.
- External validation: Velocity Cornerstone, Enterprise Co-op Pitch, CEWIL WIL; municipal backing; featured on 570 NEWS, Waterloo Record, Cambridge Today.

Technical Director & Board Member, *Path to Menzoberranzan Game*

March 2025 - Present

- Own technical architecture and gameplay direction for a 100+ contributor distributed team building a large-scale BG3 expansion.
- Shipped reusable gameplay frameworks (Lua/Osiris/Anubis): modular encounters, branching dialogue, dynamic quest state in the Divinity 4.0 engine.
- Instituted standards, reviews, CI, and contributor onboarding—cut implementation time 30% and improved in-game performance 15%.
- Drove cross-discipline delivery (narrative, level, audio, QA) with profiling/telemetry to harden systems against real player behavior.

AI Consultant, *HalalMeals*

Oct - Dec 2024

- Designed and implemented scalable NLP workflows and ML models for personalized meal recommendations, leveraging BERT and TensorFlow
- Developed scalable AI solutions using microservices architecture and conducted usability and compliance testing to ensure GDPR adherence.
- Delivered improvements in user engagement metrics, achieving a projected 20% increase through iterative development and optimization.

Extended Reality Research Assistant, *Stratford School of Interaction Design and Business*

Jan - Sep 2024

- Led research identifying a 62% gap between developer intent and user expectations for VR/AR/MR in everyday contexts.
- Developed a tool that scraped 60,000+ TikTok, Reddit, and YouTube comments for sentiment and thematic analyses.

- Co-authored paper that proposed changes projected to improve user satisfaction by 87%, aligning VR/AR/MR development with user needs.

Life Claims and Living Benefits Coordinator, *Sun Life*

Jun - Aug 2023

- Collaborated with an Agile squad to develop a new workflow application, enhancing user interface efficiency resulting in a 50% faster claim processing time for policyholders and increasing team productivity by 35%
- Played a key role in migration of critical data, ensuring no interruptions in ongoing claims processing.
- Conducted thorough end-to-end testing that ensured 100% accuracy in the claims system, delivering a flawless experience for all policyholders.

PROJECTS

My Auntie (WINNER—TechNova 2025). The first AI postpartum companion—because new parents don’t need another app; they need someone who picks up at 3 a.m. Shipped end-to-end in 36h: Twilio real-time calling + sub-5s SMS, OpenAI Realtime voice/streaming, and Gemini intent triage (Comfort/Resource/Escalate) driving Snowflake-based deterministic retrieval of vetted local care; deterministic escalation, observability (intent/topic/region/red-flags), privacy-first short-lived context, and auto post-call link texting.

XR In The Wild Research Study. An exploration of Extended Reality (XR) in everyday environments, this study uncovers pivotal insights into the disconnect between XR developers and real-world user needs. Findings offer actionable strategies poised to redefine the future of XR product development.

Magic Mirror (Hack the North 2024). Virtual try-on + AI product insights for e-commerce: segmentation/inpainting renders outfits on user photos; Cohere NLP distills reviews into pros/cons. Optimized inference from hours to minutes; shipped React UI, FastAPI services, and Shopify demo flow. Stack: React, FastAPI, Stable Diffusion, Cohere, Shopify API.