HENRIËTTA VAN NIEKERK

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EXPERIENCE

Founder & CEO, *Skrimp*   *Apr 2025 – Present*

- Live AI grocery app (Ontario-wide) covered by CTV News, Waterloo Region Record, and UWaterloo News; families report $50–$100/week savings – up to $5,000/year per Waterloo Region Record.
- Sole designer and co-engineer: built constraint-first meal planning engine (flyer ingestion, ingredient aliasing, budget caps, allergen persistence, household sync) on React/TypeScript/Firestore.
- Managed and mentored 6 first-year engineering interns across two co-op rotations shipping production code; architected onboarding systems legible enough for juniors to reason about under pressure.
- Funded by Conrad School E Co-op ($5K x2), Velocity Cornerstone Award, Jain Family Award for Entrepreneurship, and KWC municipal governments.

CTO & Technical Director, *Path to Menzoberranzan*   *Mar 2025 – Present*

- Inherited a collapsing project and rebuilt infrastructure for a 140+ contributor and 1,700 patreon member volunteer BG3 expansion covered by Kotaku, TheGamer, WCCFTech, and GameReactor; alpha targeting H1 2026.
- Architected full repo migration: Git LFS, self-hosted Forgejo on Hetzner/Backblaze B2 – cut projected repo size from 80GB+ to manageable scale; reduced contributor onboarding friction 30%.
- Founded internal R&D Skunkworks (PolyForm Shield licensed); shipped a tool resolving a 16-year unsolved problem in BG3 audio modding – reducing a multi-step manual process to one click for composers.
- Own two concurrent domains: long-range architecture stability (CTO) and daily in-engine unblocking across cinematics, quests, audio, and environments (Technical Director).

AI Designer & Consultant, *HalalMeals*   *Sep – Dec 2024*

- Led UX design and NLP pipeline architecture for personalized meal recommendations; conducted usability research and GDPR compliance testing across microservices stack.
- Delivered iterative design improvements targeting a projected 20% lift in user engagement.

XR Research Assistant, *Stratford School of Interaction Design & Business, UWaterloo*   *Jan – Sep 2024*

- Built a Python tool with live web access that scraped and auto-sorted 60,000+ comments across TikTok, Reddit, and YouTube for thematic and sentiment analysis – surfacing a 62% gap between XR developer intent and real-world user expectations.
- Co-authored research paper proposing design interventions projected to improve user satisfaction by 87%.

Life Claims & Living Benefits Coordinator, *Sun Life*   *Jun – Sep 2023*

- Embedded in Agile squad; began with discovery – auditing a broken claims database to map real user pain points – then contributed to early-stage UX design for a new workflow application.
- Redesign resulted in 50% faster claim processing for policyholders and 35% increase in team productivity.

PROJECTS

Aporia (FigBuild 2026). AR wellness tool for cognitive incompletion – Zeigarnik effect, tip-of-tongue phenomenon, the things you know about yourself that won't surface through direct questioning. Gaze-driven gravity-well mindmap with eye-tracking, three resolution pathways (Clarify / Process / Settle), and ambient AR overlay. React, TypeScript, Framer Motion, Tailwind.

Equinox (WINNER – Comfy Winter Jam 2025). Cozy 3D puzzle game shipped in 2 weeks with 14 contributors across time zones. Owned player controller + interaction architecture in Godot; built floor transitions, cleaning minigames, pause systems, and custom UI clean enough that 14 people built on top without breaking each other.

My Auntie (WINNER – TechNova 2025). First AI postpartum companion; designed for degraded cognition at 3am, not ideal conditions. Shipped in 36h: Twilio real-time calling, sub-5s SMS, OpenAI Realtime voice, Gemini intent triage (Comfort/Resource/Escalate), Snowflake-backed deterministic resource retrieval, privacy-first short-lived context.

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

EDUCATION

Honours Bachelor of Interaction Design & Business (GBDA), University of Waterloo   *Expected 2027*

- Jain Family Award for Entrepreneurship, Velocity *(2026)*

- E-Launch Pitch Award *(2026)*
- UWaterloo News Feature – Skrimp *(2026)*
- Rotary Club of Stratford Award *(2025)*
- TechNova Winner *(2025)*
- Enterprise Co-op $5K Pitch Winner *(2025)*
- Velocity Cornerstone Award *(2025)*
- CEWIL Work-Integrated Learning Award *(2025)*
- Hack The North *(2024)*
- President's Scholarship *(2022)*

SKILLS

Design & Craft	Figma, Framer Motion, Rive, Jitter, interaction design, systems design, design engineering
Engineering	React, TypeScript, Next.js, Node.js, Godot, Three.js, Tailwind, Firestore, Git/LFS, Lua
Methods	User research, constraint-first design, incentive architecture, narrative UX, AR/XR