

ALEX (YA-HSIN) CHENG

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Product designer with a cognitive psychology background, specializing in hardware-constrained interfaces and high-stakes physical environments.

EXPERIENCE

Garmin Corporation	<i>New Taipei, Taiwan</i>
Advanced Product Designer II (E6)	<i>2025 – Present</i>
Dive product line UX lead — led end-to-end experience design across the Descent product ecosystem and aligned user experience across related features and teams. UX exploration for SubWave 3.0 protocol development — drove early UX direction for Garmin's next-gen proprietary dive sonar technology by identifying use cases that bridged technical decisions with real-world behavior. Research-driven requirement definition for dive rental market — led research on dive gear rental scenarios and translated insights into software, hardware, and service opportunities for product planning. UX-driven metric design for recreational divers — proposed a metric tailored to recreational diver needs and use cases; its calculation method was later granted a U.S. patent.	
Advanced Product Designer I (E5)	<i>2023 – 2025</i>
RedDot-winning, dive-centric UX for Descent X50i — designed around real diving conditions and invented diver-centric innovations, including Dynamic Depth, a real-time depth visualization that became a marketing highlight. Underwater navigation design under sonar constraints — redesigned the SubWave Buoy navigation experience by turning an inherent sonar physics limitation into an intuitive direction-to-distance guidance system. Pool Apnea training feature design — developed a sport-specific training tool through field observation and expert input; validated by Team USA captain and APAC elite athletes including top-ranked world-class freedivers.	
Product Designer I – II (E3 – E4)	<i>2020 – 2023</i>
Watch hands calibration experience for Instinct Crossover — worked across hardware and software teams to investigate calibration mechanics and create a seamless user experience without additional interface changes. AR navigation UX for automotive infotainment — designed an AR navigation experience for Toyota infotainment systems, applying perceptual psychology principles within real technical constraints.	
Onelab Technology	<i>Taipei, Taiwan</i>
UX Designer	<i>2017 – 2020</i>
- Led mobile platform redesign resulting in 15% user growth at launch; adopted by majority of partner vendors as their default display version. - Proposed proxy feature for enterprise communication software that was later granted a patent in China.	
MARIN (Maritime Research Institute Netherlands)	<i>Wageningen, The Netherlands</i>
Cognitive Psychologist Intern	<i>2020</i>
Studied cognitive workload in professional maritime operators through physiological measurement and behavioral observation; identified key indicators of cognitive overload in high-stress operating context.	

AWARDS

Garmin Descent S1 Buoy — CES Innovation Award Sport & Fitness	<i>2026</i>
Garmin Descent X50i — RedDot Design Award Interface & User Experience Design	<i>2025</i>
Seamless Indoor-to-Outdoor AR Navigation — iF Design Award User Experience	<i>2024</i>
Garmin Instinct Crossover — RedDot Design Award Interface & User Experience Design	<i>2023</i>

EDUCATION

Leiden University MSc Applied Cognitive Psychology	<i>Leiden, The Netherlands</i>
Thesis: The effect of driving experience on hazard perception and its relation with attention	
National Chung Cheng University BSc Psychology	<i>Chiayi, Taiwan</i>

LANGUAGE CERTIFICATIONS

TOEFL 102 (L30/S22/R25/W25) TOEIC 975 (L495/R480)