

# Kahu Hutton

kahu@kora.ac | (021) 150-3383 | linkedin.com/in/kahu-hutton/ | kahuhutton.com

## Work Experience

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### Dawn Aerospace - Spacecraft Propulsion Development Intern

Dawn Aerospace, Nov 2024 – February 2025

Integrated hardware and software to test and validate satellite propulsion systems.

#### Key Achievements:

- Assisted in **software and hardware integration** for satellite propulsion systems, ensuring smooth communication between thrusters, sensors, and telemetry modules.
- **Enabled cross-platform builds** by adapting DawnLink's codebase to run on Windows (previously Linux-only), improving accessibility for global teams.
- Developed **comprehensive documentation** (installation manuals, user guides) for in-house tools (e.g., YAMCS, DawnLink), streamlining onboarding for new hires.
- Configured life-cycle testing for satellite electronics by integrating Grafana for real-time monitoring and developing custom GUIs, playing a crucial role in validating propulsion performance.

### Accent Productions – CFD Engineer

Accent Productions, March 2024

CFD Wind Load Analysis & Safety Validation Report

#### Key Achievements:

- **Performed comprehensive wind load analysis** on a stage cover using Autodesk CFD and SolidWorks to determine if critical force thresholds were exceeded.
- Delivered comprehensive CFD analysis materials—including **graphs, visualizations, and a risk matrix—highlighting a 19% difference in key safety margins**, underscoring the need for design improvements.
- **Managed the entire analysis process solo**—from geometry development and meshing to simulation setup, convergence studies, post-processing, and report drafting—resulting in actionable design recommendations

## Projects

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### KORA – AI platform for education (Founder)

Founder, April 2024 – Present

Founded and led the development of KORA.

#### Key Achievements:

- **Developed full-stack web app solo**—built both the front-end with React and Next.js and the backend, leveraging Docker, AWS, and Supabase for cloud computing, deployment, and scalability. All testing was carried out using Jest, and CI/CD pipelines were set up and used throughout the project.
- Led a team to **design, deploy, and maintain** a stand-alone LMS (Learning Management System) plugin and RAG (Retrieval Augmented Generation) status-tracking tool.

- Managed **end-to-end project lifecycles**, from initial concept and UI/UX design through deployment and user feedback, ensuring alignment with business objectives.
- Maintained **ongoing client and stakeholder communication**, gathering requirements, providing updates, and rapidly iterating on features based on user input

## HaloVision - Enhancing Motorcycle Safety and Navigation

HaloVision **February 2023 – 2024**

Created a motorcycle safety HUD through custom PCB design and aerodynamic testing.

### Key Achievements:

- **Designed a heads-up display (HUD) system** for motorcycles, integrating turn-by-turn navigation and safety indicators into a helmet-mounted device.
- Created **custom PCBs** optimized for power efficiency (90% increased efficiency over prototype) and compact form factors, balancing performance needs with aerodynamic constraints.
- **Conducted aerodynamic simulations** (CFD) and physical wind tunnel tests (in collaboration with a Ph.D. fluid mechanics expert) to improve helmet mount stability at varied riding speeds by 60%.
- Oversaw **cross-functional collaboration** with app developers, hardware engineers, and industry professionals to translate concept designs into a functional prototype.

## Education

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Bachelor of Electrical Engineering with Honors. **2023 – 2026**

## Awards

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- SOA Leadership Potential Scholarship, 2023