Perth, WA · Available now
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Jamie Nicholson

Mechanical Design Engineer

I design, prototype and manufacture commercially ready products end to end, keeping tolerances, load ratings and ease of manufacture right throughout. I've done this every day for five years, running a company built entirely around that workflow.

EXPERIENCE

Founder & Director, YAKKT

2024 – present

Aluminium van roof racks and accessories, sold in the UK and Australia

- Designed the first direct body-fit roof rack for the LWB VW Crafter in Europe. The rails are built on scan data I captured with an EinScan HX, and a rule-based Inventor assembly scribes each foot to the roof line. In production, with 200+ sold.
- Built a family of tubular aluminium safari racks as iLogic rule-based parametric assemblies: one set of rules drives four racks for the Sprinter and Crafter, designed to flat-pack for shipping.
- Designed a steel and aluminium front bumper for the Mercedes Sprinter that carries a winch, is load rated and has been crash tested.
- Prototype in house: CNC programming and operation, fibre laser, and TIG and MIG welding. Load tested the racks with FEA and ran static and dynamic load cases on the rear door carriers, then fit-tested on the vehicle and revised the design from the results.
- Produce the fabrication drawings, flat patterns and BOMs under revision control, and work directly with the fabricators, welders and factories that make the parts in the UK, Vietnam and China.

Co-founder, Trekk Vans

2020 – 2024

Bespoke campervan conversions, UK

- Designed and delivered 25+ bespoke conversions (£40–60k each), from client brief and CAD layout to fabrication, fit-out and handover.

SKILLS

CAD and software	Autodesk Inventor with iLogic, Fusion 360, AutoCAD, Blender, Python for parametric flat patterns, AI workflows and AI agents, website design
Workshop	CNC programming, CNC and fibre laser operation, TIG and MIG welding, 3D scanning (EinScan HX), reverse engineering from scan data
Design	Strong attention to detail, with an emphasis on simple design and ease of manufacture. Sheet metal, tube and extrusion, fabrication drawings and BOMs, revision control, FEA

EDUCATION

MEng Civil & Environmental Engineering, First Class, University of Nottingham

2016 – 2020

Sponsored by Taylor Woodrow, with summer site placements on Crossrail