Arnout Groen

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Education

Amsterdam University of Applied Sciences **Sep 2022 – Aug 2026**
Bachelor of Mechanical Engineering - (Average: 7.5/10.0) *Amsterdam, The Netherlands*

Keizer Karel College **Sep 2017 – Aug 2022**
Secondary education (HAVO) – Major: Nature & Technology - (Average: 6.5/10.0) *Amstelveen, The Netherlands*

Skills

Designing tools: Autodesk Inventor (incl. Nastran), AutoCAD, Fusion 360
Data & computational tools: Python, Excel (advanced functions & modeling), PowerBI
Manufacturing & prototyping: Rapid prototyping using 3D printing, Laser cutting, and testing

Projects

High End Bookshelf Speakers | *Inventor, Excel, Xsim, Fusion 360* **Jul 2024**

- Designed a 2-way speaker system, achieving a cost reduction of ∼50% compared to commercial alternatives
- Tuned the crossover using XSim, achieving ±3.5 dB response between 70 Hz–20 kHz for a balanced sound
- Designed a parametric speaker cabinet in Inventor, reducing time spent on iterations by ∼80%
- Identified and mitigated cabinet resonance using FEM modal analysis using Inventor Nastran
- Made and ran Gcode using the Fusion 360 CAM package to CNC speaker cabinet parts in <8 hours

Unmanned Aerial Vehicle | *Inventor, Python, Merlin simulator* **Jun 2025**

- Calculated and simulated UAV performance using Python & Merlin, increasing aerodynamic stability by ∼30%
- Reduced drone weight by ∼25% using composite materials & structural analysis, maintaining a safety factor of 1.8
- Integrated GPS & telemetry modules to enable fully autonomous flight with ±2 m waypoint accuracy
- Executed autonomous mission delivering a payload to a designated location, reaching speeds up to 34 m/s

Geolocation & market analysis | *Python, Excel, QGIS, Powerpoint* **Mar 2025**

- Conducted market and geospatial analysis to support investment decisions, focusing on regional demand and hotspots
- Collected and processed data on 30,000+ POIs and other spatial-economic factors to extract valuable insights
- Automated data cleaning in Python, reducing time by ∼70% & used QGIS/Excel for spatial/market trend visualization
- Developed investor-ready presentations, translating complex datasets into clear narratives using dashboards & heatmaps

Work Experience

Machined4You **Mar 2025 – Present**
Project Engineer *Amsterdam, The Netherlands*

- Conducting market research and data analysis to identify design opportunities, contributing to investor presentations and product development strategy
- Designing and reviewing mechanical assemblies for manufacturability, ensuring alignment with production requirements
- Organizing and leading weekly meetings, streamlining team coordination, reducing delays by ∼ 30% and keeping development on track

VOSTA LMG **Aug 2024 – Feb 2025**
Mechanical Engineer Intern *Hoofddorp, The Netherlands*

- Researched & developed an electric ship anchoring system increasing energy efficiency by ∼50% & reducing emissions
- Collaborated with 2 external suppliers and 3 internal departments to integrate off-the-shelf & custom components
- Wrote a comprehensive 40-page report detailing the R&D process to guide future electrification efforts

Certifications & Additional Training

Python for Engineers | *Python* **July 2024**

- Learned Python fundamentals, including data processing and working with key libraries (e.g., Pandas, NumPy)

Maintenance | *ISO maintenance & safety protocols* **Feb 2024**

- Gained hands-on training in ISO-based mechanical system maintenance