

AXEL MAGNUSSON

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EDUCATION

Royal Institute of Technology (KTH)

BSc in Material Design

Stockholm, Sweden

Expected August 2027

- Planned MSc in Naval Architecture with specialization in Lightweight Structures
- BSc thesis on alternative cemented carbides for rock drilling applications (Sandvik Västberga)

EXPERIENCE

Summer Engineer

Kanthal

June 2025 – August 2025

Hallstahammar, Sweden

- Assembled and welded industrial heating elements in a production environment
- Performed thermal and electrical calculations to support heating element design
- Created and updated CAD drawings in SolidWorks

Welder

Ebm-papst

June 2021 – July 2021

Stockholm, Sweden

- Welded industrial fan tunnel components
- Assisted in component design using SolidEdge
- Mounted components in pre-assembly workflow

PROJECTS

Metal Defect Detection using Machine Learning | *Python, TensorFlow*

Oct 2021 – Mar 2022

- Developed a machine learning model to classify six types of surface defects from metal images
- Produced a detailed report documenting model performance and dataset methodology

Stock Evaluation Tool | *Python, Pandas, Numpy, API*

Sep 2020 – Jan 2021

- Built a Python-based tool for analyzing financial time-series and fundamentals using API data
- Code and documentation available here

TECHNICAL SKILLS

Programming: Python, MATLAB

Data & ML: TensorFlow, Keras, Pandas, NumPy

Engineering Tools: SolidWorks, NX, SolidEdge, StarCCM+

Manufacturing: Welding, Product Assembly

COMMUNITY & LEADERSHIP

President

KTH Basketball Club

June 2021 – May 2023

Stockholm, Sweden

- Led board meetings and delegated responsibilities within the organization
- Organized inter-university tournaments and team events
- Served as primary liaison with sponsors and external stakeholders

Aerodynamics & Composites Engineer

KTH Formula Student

Apr 2022 – Mar 2024

Stockholm, Sweden

- Optimized carbon fiber layering and composite structures
- Ran aerodynamic simulations using StarCCM+
- Designed aero package components in NX; managed integration using Teamcenter PLM