

ANDREAS WRIFE

Civil Engineer in Engineering Physics with Master's in Computer Science

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EDUCATION

Engineering Physics with Master's in Computer Science
KTH Royal Institute of Technology

2018 – 2023

Natural Science and Arts
Viktor Rydbergs Gymnasium Djursholm (VRG)

2015 – 2018

UNIVERSITY PROJECT

Master's Thesis - KTH

Jan 2023 – Dec 2023 Stockholm

Throughout my recent Master's project, I embarked on an exciting exploration of interaction and visualisation, where I had the privilege of working in an ongoing research collaboration between KTH and KI.

My primary objective was to delve into the potential utilisation of Virtual Reality (VR) and desktop interfaces for analysing interactions with pre-recorded motion-captured neurosurgical data concerning extra-ventricular drain placement (EVD) procedures.

To accomplish this, I developed a virtual experience utilising the Unity Engine. Through the employment of a user study, I collected data and conducted comprehensive statistical and comparative analysis. The results endorsed the hypothesis that Virtual Reality stands as a promising supplementary tool for neurosurgical navigation.

EXPERIENCE

Supervisor

AstraZeneca's Summer Research School

January 2019 – August 2019 Stockholm, Sweden

Employed by Unga forskare, I worked as an experiment designer, supervisor and teacher for and during AstraZeneca's Summer Research School 2019. Over the course of a four-week period in the summer break, high school students engage in field trips, lectures, and experiments organized, crafted, and overseen by their supervisors. The activities were planned from the beginning of the year till the start of summer, when the first Research school was held in Stockholm and then later in Gothenburg. Since this was during the pandemic I helped with testing an entire new online format. I was employed as the physics, mathematics and programming focused supervisor.

- Design and conduct experiments for 40 students
- Plan and direct lectures
- Teaching in programming, physics and mathematics

ACHIEVEMENTS

- 1st prize in Future City - 2013 and Representative.
- Three peer awards.
- 1st prize in the mathematics competition *Kängurutävling*.
- Twice participant in Astra Zenica's summer research camp

COURSEWORK

- Advanced Graphics and Interaction
- Linear Algebra. Advanced Course
- Deep Learning in Data Science
- Artificial Intelligence
- Visualisation
- Theoretical Physics
- Simulation and Modeling
- Probability Theory and Statistics
- Single and Multi-variable Calculus

STRENGTHS

Fast Learner

Curious

Problem Solver

Project Leader

Visualisation

Mathematically inclined

Pedagogic

Artistic

Social

SKILLS

C++

C#

Python

Linear Algebra

LaTeX

Excel

Microsoft Windows

Unity

Blender

Photoshop

Illustrator

Indesign

Premiere Pro

LANGUAGES

Swedish (native) ●●●●●

English ●●●●●

Spanish ●●●●●

Chinese ●●●●●

EXTRACURRICULAR

- Driver's Licence B+
- Coaster Certificate
- Skipper's degree
- Founder of Astronomy Association VRG (2018)