Yunhan Wang

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Education

University of Tübingen — **Tübingen, Germany**
MSc Machine Learning — *Expected Jul 2025*
- Specialize in 3D vision and machine learning.

Delft University of Technology — **Delft, Netherlands**
BSc Computer Science and Engineering (Honours & Cum Laude) — *Sep 2020 - Jul 2023*
- Cumulative GPA: 8.7 (top 5%).
- Minor in Mathematics & Finance: GPA 9.0.

Research Experience

Computer Vision Lab, TU Delft — **Delft, Netherlands**
Undergraduate Researcher; Advisor: Dr. Xucong Zhang. — *May 2022 - Aug 2023*
- Researched multi-view Bayesian gaze estimation methods.
- Investigated vital factors that can boost gaze estimation performance. Developed state-of-the-art gaze estimation models in PyTorch.
- Contributed to GazeTech, an open-source gaze estimation framework.
- Research conducted in collaboration with Dr. Shalini De Mello from NVIDIA Research and Dr. Hyung Jin Chang from the University of Birmingham.

Thesis Student; Advisor: Prof. Jan van Gemert. — *April-Aug 2023*
- Researched Efficient Temporal Action Localization via Vision-Language Modelling.
- Subsequent research work has been accepted by the 2023 International Conference on Computer Vision (ICCV), Workshop on AI for Creative Video Editing and Understanding.

Work Experience

Scenwise — **The Hague, Netherlands**
Software Data Engineering Intern — *April-June 2022*
- Developed a backend framework to extract and geolocalize data from social media channels to analyze crowd behaviors using computer vision and natural language processing methods.
- Developed a crowd counting and object detection tool to analyze crowd behaviors from public camera recordings
- Utilized the system to reduce city managers' crowd-managing efforts on a city-wide scale and the costs associated with collecting data from government physical sensors.
- Tech stacks: GeoPy, GeoPandas, OpenCV, NumPy, Spring Boot, PostGIS, and Docker.

CS Department, TU Delft — **Delft, Netherlands**
Teaching Assistant — *Sep 2022 - Feb 2023*
- Assisted *Algorithms and Data Structures*, *Big Data Processing*, and *Capstone AI Project*.
- Supervised student groups in developing AI-centered research projects proposed by academic staff.
- Assisted lecturers with course development to promote a positive learning environment.
- Helped students retain course knowledge using personalized teaching methods.

Skills

Programming: Python, Java, Scala, SQL, C++, Unix, and R.

DS/ML stacks: PyTorch, NumPy, Spark, Flink, Scikit-learn, Pandas, and OpenCV.

Mathematics: Stochastic Calculus and Processes, Monte Carlo methods, Numerical methods, and Time Series.

Publication

Investigation of Architectures and Receptive Fields for Appearance-based Gaze Estimation
Yunhan Wang, Xiangwei Shi, Shalini De Mello, Hyung Jin Chang, Xucong Zhang. Preprint, 2023.

Benchmarking Data Efficiency and Computational Efficiency of Temporal Action Localization Models
Jan Warchocki*, Teodor Oprescu*, **Yunhan Wang***, Alexandru Damacus, Paul Misterka, Robert-Jan Bruintjes, Attila Lengyel, Ombretta Strafforello, Jan van Gemert. International Conference on Computer Vision, Workshop on AI for Creative Video Editing and Understanding, 2023.

(* denotes equal contribution)