

Can Gürer Yücel

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☎ +358 41 723 64 58 🌐 Personal Website in Can Gürer Yücel

Education

Aalto University, Espoo, Finland

Sep 2023 – exp. Nov 2025

M.Sc.(Tech.) in Chemical, Biochemical, and Materials Engineering

- **Major:** Fibre and Polymer Engineering
- **Advanced Minor:** Strength Analysis on Advanced Structures
- GPA: 4.43/5.0 ([Official transcript](#) 🔗)
- **Thesis Title:** Molecular dynamics simulations of water interactions in azobenzene containing poly(4-vinylpyridine) polymer matrix. ([Link](#) 🔗)

Boğaziçi University, İstanbul, Türkiye

Sep 2019 – July 2023

B.Sc. in Mechanical Engineering

- Double Major Program
- GPA: 3.59/4.0 ([Official transcript](#) 🔗)
- **Track:** Mechanical Structures and Systems
- Graduated with High Honors

Boğaziçi University, İstanbul, Türkiye

Sep 2018 – July 2023

B.Sc. in Civil Engineering

- GPA: 3.59/4.0 ([Official transcript](#) 🔗)
- **Thesis Title:** Modeling of textile reinforced composites (TRC) and their applications on thin curved structures ([Short summary in website](#) 🔗)
- 3rd among the Class of 2023, graduated with High Honors

Anadolu University, Eskişehir, Türkiye

Sep 2020 – Paused

B.A. in History (Open university degree)

- Paused due to relocation abroad; planning to resume studies.
- Completed 186/240 ECTS credits ([Official transcript](#) 🔗)

Research Experience

Master's Thesis Worker - Research Assistant

Espoo, Finland

Soft Materials Modeling (SMM) research group, Aalto University

Sep 2024 – May 2025

- **Supervisor:** Prof. Maria Sammalkorpi, **Advisor:** Dr. Dmitry Tolmachev
- Conducted computational research on water interactions in azobenzene-containing poly(4-vinylpyridine) polymer thin films using molecular dynamics method.
- Developed atomistic simulation workflows and analytical models in GROMACS, Python, and MATLAB, resulting in the exploration of the humidity sensing polymer thin-film behavior.

Undergraduate Research Assistant

İstanbul, Türkiye

Sustainable Construction Materials Laboratory, Boğaziçi University

Jul 2020 – Jun 2023


- **Supervisors:** Prof. Nilüfer Özyurt Zihnioğlu and Asst. Prof. Esat Selim Kocaman
- Conducted research for 3D-printable cementitious composites on rheological and mechanical properties through experimental testing. (TUBITAK 1001 Project - 119M520)
- Continued with Bachelor's thesis/project on production, modeling (FEM), and testing of textile reinforced concrete (TRC) for thin structures.
- The research contains both experimental and computational (FEM) work resulted in two scientific publications (See related fields below).

Journal Publications

Flexure Performance of Textile-Reinforced Cementitious Composites with Novel Inclined Reinforcements

Oct 2024

Kocaman E. S., Henzel, T., Aydoğan, O. G., *Yücel, C. G.*


Materials, 17(19), 4743 [10.3390/ma17194743](https://doi.org/10.3390/ma17194743) 

Conference Proceedings

Smart Material Design of Textile-Reinforced Composites for Thin-Section Structures

Jun 2023

Yücel, C. G., Öztürk, O., Aydoğan, O. G., Akın, S., Özyurt, N., and Kocaman E. S.

fib Symposium 2023, Lecture Notes in Civil Engineering, vol 349. Springer [10.1007/978-3-031-32519-9_89](https://doi.org/10.1007/978-3-031-32519-9_89) 

Work Experience

Structural Analysis Engineer

İstanbul, Türkiye

Şişecam

Sep 2022 – Sep 2023

- Started as long term intern, continued as engineer at Şişecam R&D Center.
- Led stress analysis and failure investigations of glass containers using ANSYS Mechanical, providing design recommendations to the design and factory teams using CATIA.
- Implemented data analysis glass container strength indices ($\geq 10,000$ test) via Python, MATLAB, and Excel.

Mechanical Engineering (Production) Intern

Kırklareli, Türkiye

Şişecam

Aug 2022 – Sep 2022

- Şişecam First Step Internship Program - Flat Glass Glass Kırklareli Factory
- Experienced fundamentals of flat glass production and quality control procedures through daily collaboration with operators and engineers.

Civil Engineering Intern

İstanbul, Türkiye

İstanbul Metropolitan Municipality

Jun 2022 – Jul 2022

- Haliç Science Center Restoration Project
- Experienced fundamentals of restoration project, conducted allowance procedure in collaboration with senior engineers.

Civil Engineering Intern

İstanbul, Türkiye

ZETAŞ Foundation Tech.

Sep 2021 – Oct 2021

- Akkuyu Nuclear Power Plant Construction Project
- Experienced construction procedure of pool foundations for nuclear power plant.

Other Employment

Seasonal Farm Worker - Hazelnut Harvest

Ordu Region, Türkiye

Multiple Employers from the Region

Summers 2018 and 2019

- Participated in intensive seasonal hazelnut harvesting on steep hillside farms in the Ordu region.
- Worked and was paid for full days collecting nuts manually by bending branches and gathering from trees.

Teaching Assistant for High School Students

İstanbul, Türkiye

Multiple Employers

2018 - 2023

- Provided mathematics, physics, and chemistry lessons for high school students preparing for university entrance exams.

Awards & Scholarships

Prof. Vedat Verlici Award

Jul 2023

Department of Civil Engineering, Boğaziçi University

- For excellence in studies and research in honor of Prof. Vedat Yerlici.

Category A Scholarship

Aug 2023 - Dec 2025

Aalto University

- 100% tuition fee waiver for master studies.

Undergraduate Researcher Scholarship

Aug 2023 - Aug 2025

Scientific and Technological Research Council of Turkey (TÜBİTAK)

- 2247-C (STAR) Research Scholarship Program for undergraduate researchers.

Technical Skills

Programming: Python, MATLAB, C, Julia

CAE: ANSYS Mechanical, GROMACS, ABAQUS, SAP 2000, ETABS, Arduino, KissSoft, Revit, ADAMS

CAD: Autodesk Fusion, AutoCAD, CATIA, VMD

OS: Ubuntu, Windows

Other: OriginPro, L^AT_EX, Microsoft Office, Inkscape

Scientific Communities & Certificates

Centre of Excellence in Life-Inspired Hybrid Materials (LIBER)


Sep 2024 - May 2025

- Scientific community that combines multiple expertise from biology, materials science to molecular modeling.
- Being a member of LIBER scientific community, participating multiple seminars, workshops, and symposia during Research Assistant role in SMM.

UTokyo007x: Basic Analytical Chemistry

Jan 2023

University of Tokyo on edX

- [Verified Certificate](#) 
- **Course content:** Basic tools of analytical methods, chemical equilibria for quantitative analysis, electrochemical analysis and spectrophotometry, spectrochemical analysis and analytical separations. .

Language Skills

Native: Turkish

Proficient: English - IELTS Academic 7.0

Beginner: Finnish, Swedish

Personal Interests

Active Member of History Association - Boğaziçi University

- Most interest on architectural history of Eastern Roman Period in İstanbul.

Professional Basketball Player

- Certified basketball player between 2012-2018

References

Prof. Maria Sammalkorpi maria.sammalkorpi@aalto.fi, Aalto University

- Master's thesis supervisor, Soft Materials Modeling (SMM) research group leader

Asst. Prof. Esat Selim Kocaman esatselim.kocaman@bogazici.edu.tr, Boğaziçi University

- Bachelor's thesis project supervisor, Assistant Professor at the Department of Civil Engineering