# Tetiana Hryhorchuk

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### Summary

Research and Development Engineer with 3 years of experience in materials development, smart wearables, electrochemical testing, artificial muscles, FTIR and IR Shielding materials, mechanical materials testing, thermal conductivity modelling.

### **Experience**

#### **NGT** Research Consultant

Northrop Grumman

Feb 2022 - Present (1 year 5 months)

Working at Drexel x Northrop Grumman on research and development of IR shielding coatings with MXenes applying FTIR parametrical studies.

### PhD Candidate

Drexel University College of Engineering

Mar 2022 - Present (1 year 4 months)

Performed FTIR studies of MXene IR Shielding properties smart wearable applications

### Teaching Assistant

Drexel University College of Engineering

Oct 2022 - Jan 2023 (4 months)

Grading student homework, lab assignments, final test and final presentation and modifying lectures content for MATE 280 Advance Materials Characterization Techniques

### 🛌 Social Media Manager

Drexel University College of Engineering

Oct 2020 - Jan 2023 (2 years 4 months)

Responsible for Drexel Nanomaterials Institute Official YouTube Channel and took care of managing DNI Labs video content

#### **Research Consultant**

Accenture

Nov 2020 - Feb 2022 (1 year 4 months)

Worked at Drexel x Accenture Labs on developing flexible supercapacitor to power peripheral electronics for temperature data collection

### **PhD Research Assistant**

Drexel University College of Engineering

Oct 2020 - Feb 2022 (1 year 5 months)

Performed chemical synthesis for smart wearable supercapacitors, followed by electrochemical and voltammetry testing

#### Proposal Consultant

Meta

Oct 2021 - Nov 2021 (2 months)

Leading efforts on writing smart wearables research proposal at Drexel x Meta Research Labs. The project got accepted for further funding.

### Visiting Researcher

Drexel University College of Engineering

Jul 2020 - Sep 2020 (3 months)

Performed research on artificial muscles testing and implementation for smart wearable garments

#### Research And Development Engineer

**HEIG-VD** 

Jan 2020 - Jun 2020 (6 months)

Designed transparent organic electrodes at Erasmus CNE x COMATEC-LANS Labs verified by ANSYS thermal conductivity model

### Design Engineer

Frantcevych Institute for Problems of Materials Science

Sep 2017 - Aug 2018 (1 year)

Designed and characterized TiC2 electrodes, followed by fracture toughness measurements, nanoindentaition and Rigaku X-Ray analysis.

### Undergraduate Research Assistant

National Technical University of Ukraine 'Kyiv Polytechnic Institute'

Dec 2016 - Sep 2017 (10 months)

Performed powder composites sintering, 3-points bending, zone-melting, PTC CREO & CESGRANTA analysis

#### Contract Technical Writer

CeBiTec - Center for Biotechnology (Bielefeld University)

Aug 2016 - Aug 2016 (1 month)

I was organising workshops on innovation methods in scientific writing at PunktUm Summer School x Bielefeld University and recieved C1 Technical German Languege certification

## R&D Manufacturing Associate

Otto-von-Guericke University Magdeburg

Jun 2016 - Jul 2016 (2 months)

I was responsible for high-temperature eutectic Mo alloys developing for gas & jet turbines production. Methods were validated at Volkswagen AG, Enercon GmbH & Sintermetalltechnik GmbH

#### Assistant Database Administrator

City Business School UA

Jul 2011 - Jun 2013 (2 years)

Performed administration of School Database via MS Access, school website HTML CSS design, CorelDraw visual graphics design

#### **Education**

#### Aix-Marseille University

Master of Science - MS, Erasmus Mundus Chemical Nanoengineering 2018 - 2020

Syllabus focused on Chemistry Fundamentals

### University of Rome Tor Vergata

Master of Science - MS, Erasmus Mundus Chemical Nanoengineering 2019 - 2020

Syllabus focused on Chemical Engineering

### Wroclaw University of Science and Technology

Master of Science - MS, Erasmus Mundus Chemical Nanoengineering 2019 - 2020

Syllabus focused on Industrial Engineering Applications

### National Technical University of Ukraine 'Kyiv Polytechnic Institute'

Bachelor of Science - BS, Material Science

2013 - 2017

Syllabus focused on Thermodynamic & Mechanical Properties of Composite Materials

#### **Licenses & Certifications**

**European Business Models Benchmarking** - Faculté Jean-Monnet 587138-EPP-1-2017-1-UA-EPPJMO-MODULE

- PhoBiA Nanophotonics International Conference Wroclaw University of Science and Technology
- Graduate Record Examinations GRE® General Test
- IELTS 7.0 C1 Level IELTS Official

- Drexel Nanomaterials Institute Laboratory Safety Training Drexel University
- Strategic Leadership University of Illinois Urbana-Champaign

#### **Skills**

Nanomaterials • Material Analysis • Adobe Photoshop • International Relations • Scientific Writing • Social Media • Social Media Communications • Digital Photography • Photography • Computer-Aided Design (CAD)

#### **Honors & Awards**

- NTUU KPI Scholarship Awarded for Excellent Academic Achievements Verkhovna Rada of Ukraine Sep 2014
- Chemical NanoEngineering Erasmus Joint Master Degree Scholarship Erasmus Mundus
  Sep 2018
- GDUF OVGU Scholarship Award for Advances Achieved in Engineering
  Research GDUF OVGU
  2016
- Research Assistantship Drexel University
  Jul 2020
- DAAD Summerschool Scholarship DAAD
  Aug 2016