

GEORGIANA

EDUCATION

DPhil Candidate in Engineering Science, University of Oxford *October 2020 - Present*

- Working on near field conductivity and permittivity detection

Masters in Engineering Science (MEng), University of Oxford *October 2016 to July 2020*

- First Class Honors Degree with an overall grade of 76.7%
- Interested in metamaterials, communications, electromagnetism, control and software engineering

High School Diploma, Colegiul National “Emil Racovita” Iasi *September 2012 - June 2016*

- Averaged 98% in Romanian Bacalaureate (Mathematics - 100%, Physics - 97%, Romanian - 97%)
- Participated in multiple Olympiads and contests in physics, mathematics and chemistry
- Took part in over 20 debating competitions in the World Schools format

WORK EXPERIENCE

University of Oxford - St. Hugh’s College Fellow *October 2021 - September 2022*

- Gave tutorials for the first and second year engineering group in electronic and electrical engineering.

University of Oxford - Demonstrator *October 2020 - June 2022*

- Demonstrated in electrical, electronic and communications laboratories for 1st, 2nd and 3rd year students; this involved offering technical support and offering explanations to the students

University of Oxford - Wadham College, Study Skills Advisor *October 2021 - December 2021*

Had individual sessions with Wadham engineering students where I offered advice on how to best optimise their studying strategies.

Metaboards Ltd, Oxford - Research engineer *October 2018 - May 2022*

- Worked flexibly in various projects including experimental characterization of meta-atoms and simulation of meta-surfaces performance for power transmission. Used Matlab, Sonnet EM and Python and performed experiments using Vector Network Analysers

Wadham College, University of Oxford - PAT Exam Marker *November 2020, 2021*

- Marked engineering entry exams alongside a large team of graduate and postgraduate students

Metaboards Limited, Oxford - Intern Engineer *August 2018 - September 2018*

- Created the theoretical model for the resistance of meta-material cells with rectangular cross section in a wide frequencies range. Compared approaches from literature as well as an integral method developed by myself. MATLAB was used for performing simulations and comparing methods

OrganOx Limited, Oxford - Intern Engineer *June 2018 - July 2018*

- Designed circuit to protect active medical devices from the use of non-approved sterile components. Involved hardware programming and designing a security algorithm starting from a cyclic redundancy check (CRC) approach. Work was carried out in C on an Arduino software. Designed a graphic interface for the security system in C# (using Visual Studio) and created the PCB board using Eagle

PROJECTS

Fourth Year Project - Masters Project

October 2019 - July 2020

“A near field scanning probe for 3D printed metamaterials”

- Created the theoretical model for the self-inductance and mutual inductance of coils placed nearby conductive materials starting from Dodd and Deeds’ approach. Implemented the model in Matlab and used CST Microwave studio and experiments to validate the model. Decided on an optimal design that maximises the sensitivity of the near field probe

Third Year Project - Team Project

October 2018 - May 2019

“Design of a System of Fabricating Nanotechnology using Ultrafast Lasers”

- Worked in a team with other five students towards setting up individual and communal goals, milestones and deadlines; our work was summarised in a communal and homogeneous report
- Researched nano-fabrication technologies (e.g. two-photon polymerization), imaging techniques (e.g. two-photon and STED microscopy) and optical phenomena involved in them
- Created the optical design for the main fabrication technique (two-photon polymerization), calculated the specifications of the manufacturing unit and implemented several phase retrieval algorithms for the use with a spatial light modulator (SLM)

AWARDS AND SCHOLARSHIPS

Clarendon Scholarship, Clarendon Fund

2020 - Present

- Doctoral scholarship for 3.5 years awarded as a result of academic excellence

Motz Prize, Department of Engineering Science, University of Oxford

2020

- Award offered for the Best Project in Electrical Engineering 2020

Wadham College Award, University of Oxford

2017, 2018, 2019, 2020

- Award offered to students with remarkable academic results (scholars and exhibitioners)

British Petroleum (BP) Scholarship

2017 - 2020

ABILITIES

Software

Matlab (professional), C++ (basic user), C (basic user), Python (basic user)
Sonnet EM (professional user), CST Microwave (professional user), L^AT_EX (medium user)

Languages

Romanian (native), English (fluent), German (beginner)

EXTRA-CURRICULAR

Peer Supporter

January 2018 - Present

- Attended 30 hours of training that developed listening skills alongside with ability to offer support and guidance in difficult situations

Admission Host - Wadham College

December 2017, December 2018

- Worked towards helping Oxford interviewees feel comfortable and welcome in the college

Member of Event Organising Team - OxFest Society

September 2017 - June 2018

- As a committee member of OxFest (Oxford Females in Engineering Science and Technology), I contributed towards the planning of events aimed at encouraging females with interest in STEM subjects to pursue their career goals. Was in charge of communications with the society members and event management.