

ROBERT BOCA

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PERSONAL STATEMENT

- Hardworking, ambitious, and dependable student, currently studying Medical Physics and Bioengineering.
- Always prepared to try my best under any circumstance, as part of a team or independently.
- Looking for opportunities where I can enhance and develop my skills, knowledge, and experience.

SKILLS

- | | |
|-----------------------------------|--------------------------|
| • Highly responsible and reliable | • Problem solving skills |
| • Co-operation skills | • Interpersonal skills |
| • Advising skills | • Analytical skills |
| • Technical skills | • Team orientated |
| • Time management | • Laboratory techniques |
| • Efficient team worker | • Research skills |
| • Work well under pressure | • Coding skills (Python) |

EDUCATION

2020 - to date: Technological University Dublin -Grangegorman campus.
Year 4: B.Sc Physics with Medical Physics and Bioengineering
Year 3: 2.1 Grade
Year 2: 2.1 Grade
Year 1: 2.1 Grade
Degree in Bachelor of Science
(See Appendix for module breakdown)

2014 – 2020: ST. Aidan’s Christian Brother School (CBS)

EMPLOYEMENT

CHI: Children’s Health Ireland in Crumlin and Temple Street

Date: January 2023 – August 2023 (Year 3 - Internship)

Duties:

- Apart of the Physics & Engineering team
- Provided Quality Assurance & testing of Ionizing and non-ionizing equipment and instruments, ensuring that high performance is guaranteed.
- Assisted with scientific and technical support in radiology department.
- Provided engineering services to medical instruments, this was attributed to time spent under the guide of engineering technicians.
- Provision of maintenance, and services for electromedical equipment such as Ultrasound, X-ray tube, CT scanner, etc.
- Analysing computer generated data using Excel and python.
- Assisted in Radiation Protection Services, such as providing assistance for risk assessments where necessary.

Betel Youth: Youth Organisation – (Volunteer)

Dates: April 2020- present

Duties:

- Head of finance and accounting
- Organizing events and activities for youth members. This can range from planning camping trips locally to traveling abroad.
- Adopted necessary skills such as communication and leadership to fulfil tasks that were given.

Nial Corr: Private Solicitor company

Date: August 2018 – December 2018 (Internship)

Duties:

- Appointed the tasks on office administrative duties, such as filing, bookkeeping, research, organisation, preparation of files and documents.
- Augmented workspace skills and gained the skills of time management, organization, punctuality, and effectiveness.
- Formed part of teams where teamwork and communication was a crucial skill. Team meetings were frequently held to complete each task to the highest standard.

TECHNICAL SKILLS: (*Time spent weekly in Labs: 15hrs+*)

- Breadboarding & electronic circuits and instrumentation, Light microscope, Spectroscopy, Digital oscilloscope, Report writing, use of mechanical systems, Titrations & chemical analysis, Basic lab equipment, troubleshooting, Risk & Quality assessment, equipment handling, computer programming, Handling power tools, Report writing, laboratory maintenance, quality control and assurance, scientific research.

PROJECTS:

- Characterizing performance of Photovoltaic Thermal System, Solving differential equations using python, ECG circuit build, Fractal growth of crystals. Waveguide in lasers, Ultrasound Quality Assurance. Determining energy of subatomic particles in bubble chamber. Laminar flow by particle tracking.

ACHIEVEMENTS and INTRESTS

- Python course
- Grade 6 Piano at Royal Irish Music Academy
- Reading & History
- Chaplain License
- Theology course – Level 7
- Full Driving License

REFERENCES

Dr. Jennie Cooke,

Principal Physicist
Children's Health Ireland (CHI)
Email: jennie.cooke@olchc.ie
Tel: (01) 428 27665

Dr. David O'Brien,

Professor
School of Physics, Grangegorman
Email: David.obrien@TUDublin.ie
Tel: (01) 220 5733

APPENDIX -

First Year Modules

Module Name

Maths for physical science
Histology
Anatomy
Physiology
Cell Biology
Physics Theory
Physics Laboratory
Clinical measurements
Chemistry
Computational physics and coding

Second Year Modules

Module Name

Physics theory
Medical devices
Cell biology
Maths for Physical science
Computational physics and coding
Waves and vibrations
Medical Physiology
Physics Laboratory
Electromagnetism and optics
Mechanics
Thermodynamic
Molecular physics
Electronics and semiconductors

Third Year

Module Name

Physics Theory
Quantum Physics
Solid state physics
Ionizing radiation
Nuclear physics
Electronics and instrumentation
Tissue and cell engineering
Electromagnetism

Fourth Year Modules

Module Name

Bio electromagnetism
Particle and astro physics
Radiobiology
Thermal physics
Electronics and instrumentation
Laser optics and advanced optics
Diagnostic imaging