PERSONAL INFORMATION

Pádraig Ryan

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PROFILE

About Me

I am a Third Year Mathematics student at University College Dublin. Keenly interested in Computing Technology. Hobbies include Board Games, Electronics and Music.

EDUCATION

2018 – Current

BSc (Hons) Mathematics

School of Mathematics and Statistics, University College Dublin.
- Third Year, Autumn Semester GPA of 3.80/4.20 (most recent).
- Second Year GPA of 3.85/4.20.
- First Year GPA of 3.97/4.20.
- Relevant modules completed: Computational Science (A+), Probability Theory (A+), Fields, Waves and Light (A+), Introductory Quantum Mechanics (A+), Vector Integral & Differential Calculus (A+), Oscillations in Mech Systems (A-), Inferential Statistics (A), Advanced Linear Algebra (A).

2012 – 2018

Secondary School

Ardscoil Rís, Limerick.
- Achieved 613 points in the Leaving Certificate.
- Relevant subjects: Mathematics (H1), Applied Maths (H1), Physics (H1), Design and Communication Graphics (H1), Chemistry (H1).

SKILLS AND COMPETENCIES

IT
- Experience using Python (SciPy) and Java,
- Knowledge of C and Javascript (including Node.js).
- Experience using Raspberry Pi, Arduino and Intel Edison.
- Versed in the LaTeX typesetting system.
- Competence with Linux operating systems, having used Ubuntu, Fedora, Arch Linux.
- Currently maintaining my own Git server, to manage projects across multiple machines.
- Proficient using CAD Software, specifically, Solidworks and FreeCAD.

Team Working
- Adept at working as part of a team in a stressful environment, such as during the Mathematical Contest in Modeling and at the IAMTA Senior Applied Maths Quiz.
- Experience completing long term group projects, for example, for the Principals of Scientific Inquiry (A) module, SciFest and the BT Young Scientist.

Problem Solving
- Evidenced by competitions entered and results achieved in the Mathematical Contest in Modeling (Honorable Mention), the IAMTA Senior Applied Maths Quiz (first place) and the All-Ireland Programming Olympiad (fifth place).

Initiative
- Self-taught LaTeX, and Java, Javascript and C.
- Specified and built my own desktop PC. This included sourcing, evaluating and assembling components. Upgraded the electronics of my 3D printer.
- Teaching myself to play the mandolin.

AWARDS AND ACHIEVEMENT

Competitions

COMAP MCM 2020

- Received an Honorable Mention in the 2020 COMAP Mathematical Contest in Modeling.
- Over the course of 4 days, our team formulated a data driven model to determine the migratory drift of North Atlantic Mackerel and Herring due to increased Sea Surface Temperatures (SST) as a result of Climate Change.

IAMTA National Senior Applied Maths Quiz

- Won the national competition in 2018.

All-Ireland Programming Olympiad

- Placed fifth and tenth in 2017 and 2018 respectively.

All-Ireland Linguistics Olympiad

- Placed within the top one hundred in 2017 and 2018.

SciFest

- My team won the Limerick Regional Boston Scientific Medical Devices Award at SciFest in 2015.

BT Young Scientist

- Participated in the BT Young Scientist Competition in 2015, where we built a Android App to track the user's health related data, storing it in a SQLite Database.

INTERESTS AND HOBBIES

Electronics

- Remodelled a Remote Controlled Boat to be controlled over Wi-Fi from a web browser. This used an Intel Edison development board, running a Node.js server to control Brushless DC motors using GPIO and a driver board.
- Overhauled a 3D printer's electronics to use an Arduino and a Raspberry Pi, to improve the accuracy and safety of the printer.
- Participated in the CanSat Competition, where we engineered a payload to collect atmospheric and kinematic data, which was transmitted to the ground over RF in real time.

Music

- Enjoy playing the fiddle and the mandolin.

Other Interests

- Board Games
- Travel
- Reading