

# MAREK TOPOLEWSKI

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## EDUCATION

**BSc (WITH HONOURS) COMPUTER SCIENCE**, UNIVERSITY OF WARWICK

**OCT 2016 - JUN 2019**

**2019/2018** Overall classification – **First** class, including modules:

- Advanced Databases First
- Machine Learning First
- Neural Computing First

**2018/2017** Overall classification – **First** class, including modules:

- Artificial Intelligence First
- Formal Languages First
- Logic and Verification First

**2017/2016** Overall classification – **First** class, including modules:

- Computer Security First
- Design of Information Structures First
- Mathematics for Computer Scientists First

**HIGHSCHOOL DIPLOMA (POLISH MATURA)**, III LO IN GDYNIA

**SEP 2013 - JUN 2016**

Final exams overall score of **81%** including extended subjects:

Information Technology (100%), Mathematics (74%), Physics (85%), English (96%).

## INDIVIDUAL PROJECTS

**FINAL YEAR PROJECT (BSC THESIS)**, UNIVERSITY OF WARWICK

**OCT 2018 - JUN 2019**

- Conducted a theoretical analysis of the Monte Carlo Tree Search algorithm supported by empirical evaluation of an implemented C++ Chess engine based on Stockfish.
- Examined a problem in a domain beyond the scope of the university course – Game Theory.
- Ensured even balance between the mathematical framework and its practical implementation.
- Presented modifications improving time complexity and accuracy in a final report (First class).

**PLASTICC ASTRONOMICAL CLASSIFICATION**, KAGGLE

**Nov 2018 - JAN 2019**

- Classified astronomical objects based on the time series of brightness from LSST telescope.
- Leveraged data science techniques such as feature extraction and data augmentation.
- Adopted studied at the university Machine Learning models: Random Forest, Neural Networks.
- Discussed decision process and results in a report (First class).

## GROUP PROJECTS

**FINANCIAL CHATBOT (SOFTWARE ENGINEERING)**, UNIVERSITY OF WARWICK

**JAN 2018 - MAR 2018**

- Designed and implemented a chatbot tailored to the needs of Analysts at Deutsche Bank.
- Followed the entire Software Development Life Cycle and adopted the Waterfall model.
- Integrated AI components capable of anticipating requests and customizing feed.

**INDIVIDUAL STUDY PATH**, III LO IN GDYNIA

**SEP 2014 - JUN 2016**

- Admitted to a program for talented youth in Physics and later in Computer Science which grants additional teaching resources and extracurricular classes.
- Excelled in the interdisciplinary environment enabling continuous academic development.
- Attended weekend camps on Data Structures and Computer Algorithms.

## RELEVANT EXPERIENCE

### SOFTWARE ENGINEER, CISCO

AUG 2019 – PRESENT

- Member of a SCRUM team developing e-Whiteboard software for Webex teleconferencing.
- Closely worked with the User Experience team to facilitate user requirements.
- Improved low-level programming skills and understanding of hardware and computer networks.
- Focused on software performance and parallelisation while asserting correctness and simplicity.
- Collaborated with multiple teams to maximise performance and ensure quality end product.

### SUMMER TECHNOLOGY ANALYST, GOLDMAN SACHS

JUL 2018 – SEP 2018

- Developed a troubleshooting program allowing the support team to automate repeatable tasks.
- Provided a web-based GUI using React and metrics utilising Python data processing libraries. Additionally, created a monitoring system to notify stakeholders via email in case of emergency.
- Operated in an agile team following the XP model and learned the importance of communication within the team as well as good coding practices.
- Worked under high pressure and adapted well to the challenging new environment by swiftly becoming competent at internal programming languages.

### FLOORBALL CLUB SECRETARY, WARWICK STUDENT UNION

APR 2017 – SEP 2018

- Redesigned and maintained the club's website as well as provided technical support.
- Learned leadership skills and responsibility as a member of the executive team.

### JUNIOR SOFTWARE DEVELOPER, VIVA RUMIA

SEP 2016 – SEP 2017

- Assisted in creation of an application for placing and analysing orders in a restaurant.
- First exposure to real-life Computer Science and development patterns such as Factories and Model-View-ViewModel.
- Sparked interest in IT, instantiated abstract thus far statistical and computing methods.

## SKILLS AND INTERESTS

### ODYSSEY OF THE MIND

- Partook as a contestant in an international programme for teams of creative youth winning on national level thrice and securing 8<sup>th</sup>, 7<sup>th</sup> and 4<sup>th</sup> place in World Finals in the USA.
- Continued to be involved as a voluntary judge and organised workshops for younger teams.
- Developed skills such as leadership, teamwork, creativity and spontaneity.

### POLISH RED CROSS

- Completed a first aid course, advanced aid summer camp and became a certified rescuer.
- Raised awareness among fellow students by holding extracurricular classes on first aid.
- Learned to control situation under pressure and how rewarding helping others is.

### SPORTS

- Represented the University of Warwick in Floorball for three years.
- Competed in several regional Tennis doubles tournaments: Rumia Open, Reda Open.
- Enabled to strike a balance between body and mind, enhanced cooperation skills.

### LANGUAGES

- Polish (native), English (fluent), German (conversational).

### MUSIC

- Play a number of instruments including: guitar, keyboard, drums.

References available on request