

## Kazimierz (Kaz) Wilowski

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A capable soon-to-be master's graduate in applied cyber security possessing significant programming and software engineering experience. Experienced in building software using modern agile development methodologies, with additional expertise in building and testing secure digital systems. British citizen, currently searching for software engineering work in the UK. Eager to transition towards applying current experience to real-world challenges, especially those at the intersection of software engineering, mathematics, and cyber security. Excited to continue growing technical skill set while learning from experienced industry professionals.

### ► Language Proficiency

**Strong:** Python, Java, JavaScript/TypeScript

**Competent:** C, C++, Prolog, SQL, Bash

### ► Technical Skills

*Technical Research and Analysis*

*Software Engineering (OOP, Agile, DevSecOps)*

*Data Privacy/Security (GDPR, PCI-DSS, ISO27001)*

*Web Development (Node.js, React, Nginx, HTML/CSS)*

*Mathematical Modelling, Formal Logic, and Proofs*

*Version Management (Git, GitHub, GitLab)*

*Pentesting and Vulnerability Analysis*

*Linux Systems (Bash scripting, configuration, etc.)*

### ► Education

#### **Queen's University Belfast - MSc Applied Cyber Security (*Predicted Distinction*)** **2022 - 2023**

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- Graduating September 2023. National Cyber Security Centre certified degree.
- Gained direct experience using a wide variety of security tools applicable to various cyber security disciplines, including network security (*Wireshark, UFW, Snort*), vulnerability analysis (*BurpSuite, Kali Linux, Metasploit*), and digital forensics (*Encase, HxD*).
- Acquired knowledge and understanding of various industry standards and frameworks covering a range of areas, including data privacy (*GDPR, PCI-DSS*), information security (*ISO270001, NIST*), and vulnerability analysis (*OWASP, PTES*).
- Passed all modules with distinction. For two modules (*Computer Forensics* and *Ethical Hacking and Penetration Testing*), grade received was highest in entire cohort.
- As part of dissertation, developed an extensive Java library providing a proof-of-concept reference implementation for a novel cryptographic protocol with applications in multi-party computation.
- Presently co-authoring an upcoming paper based on the novel work carried out as part of dissertation which will be submitted for publication in the near future.

#### **University of St Andrews - BSc Mathematics and Computer Science (*First Class*)** **2018 - 2022**

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- Graduated with a first class degree and averaged above a first in each year of study completed; finished degree with an average Honours module grade of 18.35 out of a possible 20 (4.0 GPA).
- Awarded several academic accolades including 2018/2019 class medal awarded by the School of Physics and Astronomy for outstanding performance, and inclusion on Deans' List every year of study.
- Extracurricular activities included contributing articles to student music magazine *Hearing Aid* on various topics and being a member of the university's men's first volleyball team, including as captain in 2020/2021 which involved helping to lead the volleyball club through the COVID-19 pandemic and leading the men's team to the Scottish Volleyball Plate finals.

#### **Banchory Academy** **2012 - 2018**

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- Achieved A grades across all subjects taken throughout time at Banchory Academy, including four Advanced Highers and five Highers. Fulfilled the role of Head Boy in final year of study.

### ► Technical Experience

#### **Undergraduate - Group Software Development Project** **2020 - 2021**

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- Undertook a year-long project in a small, five member team. Successfully designed, built, and tested a fully functional federated social media website. Grade: *18 out of 20* (4.0 GPA).
- Gained experience working within an agile software development environment, attending regular scrum meetings and periodically met with stakeholders to provide updates on project status and progress.
- Reinforced proficiency in various technologies while contributing to the development of website's back-end codebase (Node.js, TypeScript, IBM Loopback 4), and front-end user interface (React).
- Personal responsibilities included implementation of security controls, including the system's authentication/authorisation mechanisms and secure password storage.

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**Undergraduate - Computer Science Dissertation Project** **2021 - 2022**

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- Undertook a year long individual project focussed on automated musical transcription. Grade: *19.5 out of 20* (4.0 GPA).
- Developed in Python a tool for converting monophonic musical audio recordings to sheet music.
- Implemented, tested, benchmarked, and compared various contemporary algorithms for extracting musical information from raw audio data, and presented findings in a comprehensive technical report.
- Further solidified Python software development skills and demonstrated ability to apply self productively and work independently towards both long-term and short-term goals.
- Produced exceptionally strong final dissertation. Project was one of 6 in cohort to be included in student handbook as a model example for future students.

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**Team Member - St Andrews Global Challenges Programme** **2021**

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- For four months, joined one of several small multidisciplinary teams working to research, explore, and propose solutions to combat misinformation, especially within the context of contemporary global challenges (e.g. COVID-19 pandemic, climate change, etc.)
- Oversaw design and development of open-source, extensible Chrome and Firefox compatible browser extensions providing users with information about elected representatives.
- Utilised Facebook and Twitter APIs to construct open-source, extensible, automated pages which provided real-time information on votes taking place in government's legislative branch.
- Communicated technical aspects of project to external panel appointed to appraise projects.
- Project was awarded the £1,000 "best overall project" runners-up prize by external panel.

► **General Experience**

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**Retail Salesperson - Cotswold Outdoor** **2022**

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- Undertook seasonal (Christmas) three month work contract while studying for MSc. Honed established skills, including: consistent punctuality, strong inter-personal verbal communication skills, and capacity to work both independently and as a member of a larger team.

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**Volleyball Coach and Referee - University of St Andrews** **2020 - 2022**

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- Qualified Scottish Volleyball Association Grade 4 referee and Scottish Qualification Authority certified volleyball coach. Coached the St Andrews men's second team over a period of two academic years and assisted with officiation of competitive matches played by the university's volleyball teams.
  - As both referee and court-side coach, demonstrated strong leadership, ability to apply problem-solving skills, and ability to communicate assertively and calmly, even in fast paced environments.
  - Alumnus of the 2020/2021 Saints Coaching Programme, a programme to help improve student-led coaching within sports clubs at the university.
  - Honed communication skills as a coach by providing explanations and demonstrations of volleyball techniques and mechanics and by answering players' questions about the sport.
  - Used leadership and organisational skills to organise and establish team structure.
  - Refereed games for the university volleyball club and was commissioned to referee games as an external referee for other clubs, demonstrating professionalism, leadership, and assertiveness.

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**Academic Tutor - Independent** **2017 - 2018**

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- Delivered lessons, remotely and in-person, on a variety of subjects including Mathematics, Physics, and Chemistry at National 5 and Higher standard (equivalent to GCSE/1st year A-level standard). All students tutored were able to meet or exceed their proposed goal for the subject being tutored. Responsibilities included:
  - Planning and constructing lessons on topics students were unsure about.
  - Organising and scheduling lessons, requiring good time-management and punctuality.
  - Critical and empathetic communication skills were honed by discussing with students uncomfortable aspects of exams and assessments, such as exam stress, alternative pathways if exams were to be failed, etc.

**REFERENCES AVAILABLE ON REQUEST.**