



# Europass Curriculum Vitae



## Personal Information

|               |   |
|---------------|---|
| Name          | Jovan Kašćelan                          |
| Address       | Baku 38/II, Podgorica 81000, Montenegro |
| Telephone     | +1 (857) 218 9779 / +382 67 001 227     |
| E-mail        | kascelan@bu.edu                         |
| Nationality   | Montenegrin                             |
| Date of birth | 26/02/2003                              |
| Gender        | Male                                    |

## Work Experience

|                  |  |
|------------------|--|
| Dates            | <b>May 2024 – August 2024</b>  |
| Position         | <b>Internship at MoMA Lab NYUAD</b>  |
| Main activities  | Worked on privacy-preserving machine learning with focus on ResNet 18. Developed penalty functions to control input values for accurate polynomial approximations. Wrote and optimized PyTorch code to evaluate these functions. |
| Employer         | MoMA Lab, NYU Abu Dhabi, UAE   |
| Sector           | Academic Research / Computer Science / Machine Learning  |
| Dates            | <b>May 2023 – August 2023</b>  |
| Position         | <b>Internship at MoMA Lab NYUAD</b>  |
| Main activities  | Researched polynomial approximations for privacy-preserving inference in encrypted domain. Investigated trade-offs for nonlinear functions in Vision Transformers. Implemented approximations using PyTorch.                     |
| Employer         | MoMA Lab, NYU Abu Dhabi, UAE   |
| Sector           | Academic Research / Computer Science / Cryptography  |
| Dates            | <b>May 2022 – August 2022</b>  |
| Position         | <b>Internship at MoMA Lab NYUAD</b>  |
| Main activities  | Researched algorithms related to Fully Homomorphic Encryption (FHE), focusing on BGV scheme. Studied re-linearization, modulus switching, key switching, and bootstrapping.  |
| Employer         | MoMA Lab, NYU Abu Dhabi, UAE   |
| Sector           | Academic Research / Computer Science / Cryptography  |
| <b>Education</b> |  |
| Dates            | <b>August 2021 – May 2025</b>  |
| Title            | <b>Bachelor's Degree in Computer Science (Magna Cum Laude, GPA: 3.974/4.0)</b>   |
| Subjects         | Computer Science, Machine Learning, Cryptography, Algorithms   |

|                               |   |
|-------------------------------|---|
| Institution                   | NYU Abu Dhabi, UAE  |
| Level                         | ISCED 6   |
| Dates                         | <b>September 2017 – June 2021</b>   |
| Title                         | <b>High School Diploma, top 0.5%</b>  |
| Subjects                      | General education   |
| Institution                   | Slobodan Škerović High School, Podgorica, Montenegro  |
| Level                         | ISCED 3   |
| Dates                         | <b>September 2008-June 2017</b>   |
| Title                         | <b>Primary School Diploma, Valedictorian (Đak generacije)</b>   |
| Subjects                      | General education   |
| Institution                   | Štampar Makarije Primary School, Podgorica, Montenegro  |
| Level                         | ISCED 2   |
| <b>Personal Skills</b>        |   |
| Mother tongue                 | Montenegrin   |
| Other languages               |   |
| English                       | Understanding C2, Speaking C2, Writing C2   |
| German                        | Understanding B2, Speaking B2, Writing B2   |
| French                        | Understanding B1, Speaking B1, Writing B1   |
| Social skills                 | Strong teamwork from research labs, hackathons and group projects   |
| Organisational skills         | Independent coding, co-authoring papers   |
| Technical skills              | ML with PyTorch, Python, Cryptography (FHE), Algorithms, C++, C, Java, JS, SQL, HTML/CSS  |
| Computer skills               | Proficient in PyTorch, FHE frameworks, software engineering tools   |
| Other skills                  | Piano, Chess, Reading, Basketball   |
| Driving licence               | Yes- B  |
| <b>Additional Information</b> |   |
| Awards and Competitions       | <ul style="list-style-type: none"> <li>• Scholarship of the Ministry of Science of Montenegro (2021-2024)</li> <li>• The best young programmer in Montenegro (2019-2021)</li> <li>• Top 5 in National Math Competition (2021)</li> <li>• Represented Montenegro at IOI 2021 and 2019</li> <li>• Represented Montenegro at Balkan Olympiads (2018-2019)</li> <li>• Top 3 in UAE at IEEEXtreme (2022)</li> <li>• MENSA member (2020–Present)</li> </ul> |
| Publications                  | <ul style="list-style-type: none"> <li>• Chielle E, Alam M, Liu J, Kascelan J, Maniatakos M. Privacy-Preserving ResNet Models using Low-Degree Polynomial Approximations and Structural Optimizations on Leveled FHE. arXiv preprint arXiv:2509.22857. 2025 Sep 26.</li> </ul>  |

- Kascelan J, Yang R, Shasha D. EpiInfer: A Non-Markovian Method and System to Forecast Infection Rates in Epidemics. Algorithms. 2025 Jul 21;18(7):450.