

May 1, 2024

Dear Members of the Admissions Committee,

I am writing to express my interest in pursuing the Software Engineering Master's Program. Having graduated with distinction from HSE University with a degree in Information Security, I am determined to deepen both my professional and academic knowledge in the field of software engineering in order to become a prominent researcher in the area of security with a wide-ranging and profound background.

Throughout my undergraduate studies, I achieved excellent results in my coursework, graduating among the top 10% of my class. This dedication not only resulted in a GPA of 9.06 out of 10, but also in several awards. I received a medal from the All-Russian Student Olympiad "I am a Professional" and a first prize at the "Digitalskills" Industrial Championship, where I competed in the category of corporate defence against internal threats. Additionally, I have been involved in several software projects, which have given me the opportunity to present our work at conferences.

My strategy has always been to take additional courses in order to broaden my knowledge in computer science. I completed a specialised Cloud Computing course, which introduced me to distributed software systems that are built on cloud-based technology. This sparked my interest in cloud and container technologies, which I have continued to explore under the guidance of Prof. Vladimir Bashun. As a result of this experience, I wrote a bachelor's thesis on the security of containerized applications, demonstrating my ability for detailed research and complex problem-solving in the fields of computer and software technologies.

Excellent preparation in class allowed me to enter the industry relatively early, and I have now gained more than two years of practical experience in leading technology companies. I interned as a security operations centre analyst, where I improved my skills in analysing and recognizing cyber attacks. Later, I shifted my career towards software engineering and worked as a DevOps engineer at Kaspersky Lab, where I interacted extensively with highly loaded distributed systems operating both on the cloud and on-premises, serving more than a million requests per second. Thanks to my experience, I was able to secure a position at a globally renowned IT company, Yandex, where I am currently working with Clickhouse analytical database clusters on a production scale. In addition to my work in the industry, I also participate in university research projects as a member of a laboratory and as a teaching assistant to junior students. This experience helps me to enrich my knowledge and skills, which I am then able to share with others. To expand my knowledge, I have sought out learning opportunities outside of the university and received certifications from reputable security solution vendors on the Russian market (InfoWatch and Infotecs), which have helped me to gain additional expertise in this field.

Upon completing the Master's program in Software Engineering, I aim to transition into a career that focuses on academic research. I am particularly interested in the research opportunities that lie at the intersection of cybersecurity and computer science. Specifically, I would like to focus on cloud-native and distributed software systems, as well as the related security challenges that arise in these areas. Within the collaborative environment of your program, I am eager to utilise the shared facilities offered by the participating universities. These institutions have a long history of excellence in research, and I would be honoured to continue my studies under the supervision of Prof. Dr. Bernhard Bauer at the University of Augsburg. His work brings a unique perspective to the field of distributed systems, which resonates with my interests. Furthermore, through collaborative projects supported by the program, I aim to establish strong professional connections with other members that will contribute to my research career. This will not only enhance my research output, but also allow me to significantly contribute to the technological advancements at my home university. I hope to enhance the academic culture and share my experience with aspiring researchers in the fields of software engineering and security on my faculty.

I am confident that the Elite Master's Program in Software Engineering would be an ideal environment for me to grow both academically and professionally. The access to pioneering research facilities, as well as an individualized study track with mentorship from renowned experts, will prepare me to make significant contributions to the field of secure software engineering. I am particularly excited about attending courses on Distributed Systems and Model-Based Safety Analysis, which are both areas that I am passionate about and that I believe will help me gain a deep understanding of various aspects of software development. The curriculum also includes other subjects that are designed to foster a complex understanding of the subject matter. Working alongside other like-minded individuals who share my enthusiasm for advancing the field will be a great opportunity for me to collaborate and learn from each other. I look forward to contributing to the program and making a positive impact in the world of software engineering.

Thank you for considering my application. I believe that my academic and professional background aligns with the objectives of the Software Engineering Masters program, and I am excited to contribute to this field and build connections with fellow participants and the research community.

Warm regards,

Aleksei Shadrinov