

Privacy Engineering Domains

Software Developer Engineer

By the 2022-2023 [IAPP Privacy Engineering Section Advisory Board](#)

“I perform code audits to ensure our software meets the organization’s compliance requirements and security objectives. I evaluate and build tooling to support the automation of privacy risk evaluation and privacy policy enforcement.”

-Software Developer/Engineer

<div>Tasks</div> <div></div>	<ul style="list-style-type: none">• Perform code development and review to ensure software meets the privacy and security control objectives.• Evaluate and build tooling to support automation of privacy-risk evaluation and privacy-policy enforcement.• Align coding practices with company programs and standards and global practices.• Develop and deploy privacy-enhancing technologies.• Develop new data-management products.
<div>Professional profile</div> <div></div>	<p>Technical competencies: Computer science, data science, encryption, anonymization and pseudonymization, cookie management, identity and access management, federated learning, data structures, algorithms, runtime complexity, application programming interfaces, database design, programming, cloud computing, and PETs.</p> <p>Areas of experience: Programming, data science, artificial intelligence, systems/database engineering, systems and network/cloud architecture, secure software development, program management, business intelligence, engineering, and software research and development.</p>
<div>In the organization</div> <div></div>	<p>Reports to: Head of software engineering/architecture, chief technology officer, systems architecture and development.</p> <p>Works with: Software engineers, architects, developers, quality assurance, business operations, information security, product management, risk, audit, assurance, information technology, supply-chain, procurement, legal and compliance.</p>
<div>Strategic drivers</div> <div></div>	<ul style="list-style-type: none">• Developing and maintaining privacy-enhancing frameworks, tools and products to meet privacy and data protection regulatory requirements.• Detecting and mitigating privacy threats in software throughout development and production.• Researching and detecting privacy compliance against privacy policies.
<div>Tools and resources</div> <div></div>	<ul style="list-style-type: none">• Software development platforms and cloud-based code repositories and services.• Dynamic and static code analysis tools.• Security and privacy training and certifications.
<div>Getting it right means</div> <div></div>	<ul style="list-style-type: none">• Privacy-enhancing frameworks, tools and technologies are well developed, maintained and create business value.• Software developers have the appropriate resources and time to learn and maintain the technical skills necessary to build PETs.• Strong culture of innovation, with privacy as a business differentiator and enabler in product development.• Lower attrition of highly skilled developers who are not only privacy-aware, but able to cross disciplines to develop and add value to the organization.