

Computational Law



What is Computational Law?

Computational law is an interdisciplinary field that uses computer science and engineering to create automated legal software that can be used on a computer or in a mobile application. In this field, lawyers work with coders and web designers to translate laws into logic statements that can be encoded into computer systems. The systems apply those logic rules to inputs from users and produce outputs that inform the user if their inputs represent a breach of the law, or they can advise users of specific inputs that would be consistent with the law. Computational law has emerged as autonomous systems much like self-driving cars and robotic assistants, as the internet has become embedded in daily life ([Genesereth](#)).

Proponents of computational law argue that law that “works like software” will create a more just society by reducing human error and bias and by granting those without law degrees access to accurate and affordable legal analysis ([Lee](#)). However, computational law faces challenges because it cannot incorporate reasonable judicial judgment that exists outside explicit statements of the law. Furthermore, some laws are contradictory and are not easily translated into logic statements ([Didech](#)).

Computational law systems are currently most common in fields such as tax law (for example, TurboTax) and compliance checking (for example, with Zoning Restrictions) ([Genesereth](#)). Some see the potential for broad expansions in the future, though, because new laws can be drafted in a way that makes them more easily translatable into code ([Didech](#), [Lee](#)).

Where Do Computational Lawyers Work?

Companies and Industries

Tax Preparation Software Companies— [TurboTax](#), [H&R Block](#), [Tax Slayer](#)

Open-source Publishing — [Creative Commons](#)

General legal analytics— [Ravel Law](#), [LexMachina](#)

Contract analysis— [Kira Systems](#)

Self-Driving Cars and Artificial Intelligence

Resume Boosters for Computational Law

Learn to code with a basic [free program](#) or through in-depth [LinkedIn Learning courses](#) (free for all University of Memphis Law students)

Complete a certificate program from [Creative Commons](#) to learn more about open-source publishing, a field that incorporates Computational Law

Computational Law Resources



What Classes Should I Take?

If you are interested in tax-preparation software:

Corporate Tax
Estate Planning and Transfer Taxation
Income Tax
Partnership Tax
Tax Lawyering
U.S. Taxation of International Income

If you are interested in contract analysis software:

Contracts I, II
Legal Drafting: Contracts

If you are interested in publishing rights and intellectual property analysis tools:

Copyright
Intellectual Property Survey
Patent Law

If you are interested in zoning law:

Land Use Law
Land Review
Neighborhood Preservation Clinic
Property I, II
Realty Transactions

Professional Associations

American Bar Association

All University of Memphis law students have free membership to the [American Bar Association](#). Their website provides routinely updated information and interest-specific career advice. Join different sections to find out what they offer.

Innovative Academic Groups

[Massachusetts Institute of Technology Computational Law Development Report](#)— a group of lawyers, coders, and engineers that work on a variety of computational law projects and publish articles about developments in the field

[CodeX](#), a partnership between Stanford Law School and Department of Computer Science to study computational law— [Hammurabi](#) is one innovative project that accepts contributions and collaborations and publishes recent research on computational law.

Computational Law Articles

[“Law + Tech: Friend, Foe, or Both?”](#) by J. B. Ruhl and [“Don’t Start Recruiting Computers as Associates Just Yet,”](#)

By Kenneth A. Grady

These articles from the American Bar Association examine the limits to automating legal practice.

[“Computational Law: What It Is and Why It’s Cool, with Kate Didech”](#)

In this video, Kate Didech, a fellow at Stanford University’s CodeX, explains her computational law project that translates zoning laws into code.