

# Andrea Cadeddu

## Full-Stack Developer, Software Architect and Material Scientist

Turing Group  
111 W. Jackson  
Chicago, IL 60606 USA  
Date of Birth: October 21, 1982  
Citizenship: Italy  
Status: EB-2 (green-card)

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*Other Languages:* (CEFR )  
Spanish C1, English C2, French C1, Catalan A2.

## Current Position

Principal Software Architect, Turing Group, since Aug 2017.

*Responsible for Client relationship, team lead, training and management, project ideation, planning and architecture, development.*

## Education

Ph.D. Physical Chemistry, Institut de Science et d'Ingénierie Supramoléculaires (ISIS), Université de Strasbourg , 17 December 2012.

M.Sc Material Science, University of Cagliari , 2008.

B.Sc Material Science University of Milan Bicocca, 2006.

## Certificates

AWS Certified DevOPS Engineer - Professional

AWS Certified Developer - Associate

## Skills

AWS, Serverless, JavaScript, Python, Java, Html5, CSS, Node, Angular, React, Vagrant, Puppet, Ansible, Docker, AWS, Adobe AEM/CQ. some Clojure, some Haskell, some Go.

## Research Fields

Machine Learning, Chemical Networks, Nanochemistry, Scanning Tunneling Microscopy, Physical Chemistry, Molecular Dynamics;

## Research

Chemistry as a Natural Language.

Machine-Learning Retrosynthesis.

## Professional Activities

Turing Group - Software Architect, Chicago IL, April 2016 - August 2017

*Responsible for Client relationship, project ideation, development and training.*

Hyatt.com - Full Stack Developer, Hyatt corporate office, Chicago IL, April 2014 - April 2016.

Chematica - Lead Software Engineer and Post Doctoral Fellow , Northwestern University, Non Equilibrium Research Center, Evanston IL, USA. February 2013 - April 2014.

Domtree.net - hackaton 2013 - graph representation of DOM structure of URLs

Lead Sulfide colloidal nanocrystal synthetic Protocol and pipeline Development, Seed Projects - INFM Call for Young Research. INFM:CNR Cagliari University may-october 2009.

## Publications

*Atomically Precise Prediction of 2D Self-Assembly of Weakly Bonded Nanostructures: STM Insight into Concentration-Dependent Architectures.* Small 2015.

*Organic chemistry as a language and the implications of chemical linguistics for structural and retrosynthetic analyses.* Angewandte Chemie, Volume 126, Issue 31, pages 8246-8250, July 28, 2014

*Concentration Dependent Supramolecular Engineering of H-bonded Nanostructures at Surfaces: Predicting Self-assembly in 2D.* Journal of the American Chemical Society 2013. doi:10.1021/ja4002025.

*Modulating the self-assembly of rigid clicked dendrimers at the solid-liquid interface,* Chemical Communications, 2011, 47, 10578-10580.

*Self-templating 2D supramolecular networks: a new avenue to reach control over a bilayer formation,* Nanoscale, 2011, 3, 4125-4129.

Last updated: March 9, 2018