

# Chiho Kim

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Accomplished CTO & Co-founder at Matmerize, Inc., driving company growth through strategic leadership in lead generation and pioneering the development of an AI & data-driven platform. Holder of a Ph.D. in Materials Science & Engineering, led projects establishing the foundation of key aspects in polymer informatics at the University of Connecticut and Georgia Tech, resulting in impactful publications and contributions to intellectual property in the field.

## Work Experience

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- Matmerize, Inc. (Atlanta, Georgia) ... CTO & Co-founder, March 2020 – Present
  - Led shaping the company, strategic initiatives by overseeing project and product management, envisioning, and driving operations
  - Pioneered innovation effort by spearheading the development of an industry-grade, full-stack, data-driven and machine learning platform for intelligent materials design at scale
  - Expanded the industry client base resulting in a twofold increase in annual revenue since 2021
- Georgia Institute of Technology (Atlanta, Georgia) ... Research Engineer II, April 2018 – Present
  - Led Polymer Genome project
  - Developed polymer specific featurization technics and surrogate model training protocols
  - Mentored graduate and undergraduate students and junior research associates to steer
- University of Connecticut (Storrs, Connecticut) ... Research Associate II & Postdoc, April 2014 – March 2018
- Samsung Electronics Co., Ltd. (Korea) ... Senior Engineer, March 2010 – March 2014
  - Engineered semiconductor memory/logic devices using advanced computational and data-driven pipelines
  - Developed integrated atomic-to-continuum scale simulation schemes minimize the potential failure at nanoscopic multilayer structures in transistors

## Education

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- Ph.D. in Materials Science and Engineering, Hanyang University, Seoul, Korea, February 2009
- M.S. in Ceramic Engineering, Hanyang University, Seoul, Korea, February 2005
- B.S. in Ceramic Engineering, Hanyang University, Seoul, Korea, March 1999 – February 2003

## Publications

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90 publications at SCI journals including;

- (Invited review) Polymer informatics comes of age: design of functional and sustainable polymers assisted by artificial intelligence, Nature Reviews Materials (submitted, 2024)
- Polymer design using genetic algorithm and machine learning, Comput. Mater. Sci., 186, 110067, (2021)
- Design of polymers for energy storage capacitors using machine learning and evolutionary algorithms, J. Mater. Sci. (2021)
- Machine-learning predictions of polymer properties with Polymer Genome, J. Appl. Phys., 128, 171104, (2020)

## Intellectual Properties

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- Software disclosure) A software package for feature engineering, Georgia Tech Research Corporation (2019)
- Software disclosure) Streamlined software for machine learning model generation and prediction, Georgia Tech Research Corporation (2019)
- Invention disclosure) Custom fingerprints for machine learning based polymer property predictions, Georgia Tech Research Corporation (2019)
- Software disclosure) A software package to numerically fingerprint polymers, Georgia Tech Research Corporation (2019)