

Wode Ni

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Education

Carnegie Mellon University

- Ph.D. in Software Engineering
- Co-advised by [Ken Koedinger](#) and [Josh Sunshine](#)

2018.9 -
Pittsburgh, PA

Columbia University

- B.S. in Computer Science, *Magna Cum Laude*
- Vision, Graphics track

2016.9 - 2018.5
New York, NY

Dickinson College

- B.S. in Computer Science, *Summa Cum Laude*
- Computer Science Departmental Honors

2013.9 - 2016.5
Carlisle, PA

Publications

How Domain Experts Create Conceptual Diagrams and Implications for Tool Design

Wode Ni*, Dor Ma'ayan*, Katherine Ye, Chinmay Kulkarni, Joshua Sunshine

Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI'20), to appear.

Defining Visual Narratives for Mathematics Declaratively

Max Krieger, **Wode Ni**, and Joshua Sunshine.

Evaluation and Usability of Programming Languages and Tools (PLATEAU 2019), co-located with UIST.

[\[PDF\]](#) [\[slides\]](#)

Designing Declarative Language Tutorials: a Guided and Individualized Approach

Anael Kuperwajs Cohen, **Wode Ni**, and Joshua Sunshine.

Evaluation and Usability of Programming Languages and Tools (PLATEAU 2019), co-located with UIST.

[\[PDF\]](#) [\[slides\]](#)

Substance and Style: domain-specific languages for mathematical diagrams

Wode Ni*, Katherine Ye*, Joshua Sunshine, Jonathan Aldrich, and Keenan Crane.

Domain-Specific Language Design and Implementation (DSLDI 2017), co-located with SPLASH.

[\[PDF\]](#) [\[slides\]](#) [\[www\]](#) [\[repo\]](#)

Whiteboard Scanning Using Super-Resolution

Wode Ni.

Dickinson College Honors Theses. Paper 221.

[\[PDF\]](#)

Experience

Carnegie Mellon University, Research Experiences for Undergraduate

2017.5 - 2017.8

Research Assistant

Penrose is a system that automatically visualizes mathematics using two domain-specific languages: **Substance** and **Style**. Co-advised by [Jonathan Aldrich](#), [Keenan Crane](#), [Joshua Sunshine](#), and [Katherine Ye](#), I designed and implemented the Style language, and extended the Substance language to support functions and logically quantified statements.

Columbia University, Computer Graphics and User Interfaces Lab

2017.1 - 2017.5

Research Assistant

Worked with prof. Steven Feiner, on **Cyber Affordance Visualization in Augmented Reality** project. Developed a Microsoft HoloLens application that visualizes the Columbia campus in AR environment.

AsialInfo

2015.6 - 2015.8

Software Engineering Intern

Worked on server-side web applications and server deployment tools.

Advising

Max Krieger (CMU, independent research & [REUSE](#))

CMU, 2018 - Now

Courtney Miller (New College of Florida, [REUSE](#))

CMU, 2019

Anael Kuperwajs Cohen (Macalester College, [REUSE](#))

CMU, 2019

Teaching

Teaching Assistant, **Programming Languages and Translators (COMS 4115)**

Columbia, 2017 - 2018

Teaching Assistant, **Introduction to Java II (COMP 132)**

Dickinson, 2016

Peer Tutor, **Data Structures and Problem Solving (COMP 232)**

Dickinson, 2016

Computer Lab Consultant

Dickinson, 2014 - 2016

Honors & Awards

Phi Beta Kappa

Dickinson, 2018

Excellence in Computer Science Award

Columbia, 2018

Travel Award PL Mentoring Workshop (PLMW)

SPLASH, 2018

Tau Beta Pi, Engineering Honor Society

Columbia, 2017

Computer Science Departmental Honors

Dickinson, 2016

Pi Mu Epsilon, Mathematics Honor Society

Dickinson, 2016

Upsilon Pi Epsilon, Computer Science Honor Society

Dickinson, 2016

Alpha Lambda Delta, First year Honor Society

Dickinson, 2013

John Montgomery Scholarship

Dickinson, 2013

Service

Research Experiences for Undergraduates in Software Engineering (REUSE) Admission Committee

CMU, 2019