

# John C. Kolesar

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## Education

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### Yale University

*Ph.D., Computer Science*

Advisor: Ruzica Piskac

Earned M.S. en route to Ph.D. in 2022

**New Haven, Connecticut**

*2020–2026 (anticipated)*

### Cornell University

*Bachelor of Arts with Distinction in All Subjects*

**Ithaca, New York**

*2016–2020*

Majors:

- Mathematics (Magna cum Laude, Computer Science concentration)
- Classics (Latin concentration)

Minors:

- Computer Science
- Philosophy

Cumulative Grade Point Average: 3.97

Computer Science GPA: 4.02

## Honors

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### Phi Beta Kappa

*Cornell University College of Arts & Sciences*

*2020*

### Nathan Hale Associates Fellow

*Yale Graduate School of Arts & Sciences*

*2021*

### Arts & Sciences Dean's List

*Cornell University*

*All available semesters*

## Graduate Course Work Performance

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Grade of H (maximum grade for Yale GSAS) in all graded graduate courses

## Research Interests

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- Formal Methods
- Program Verification
- Symbolic Execution
- Automatic Program Repair
- Software-Defined Networking
- Cryptography
- Competitive Programming

## Publications

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- John C. Kolesar, Ruzica Piskac, William T. Hallahan. **Checking Equivalence in a Non-strict Language**. *OOPSLA*, 2022.

- o Jialu Zhang, De Li, John C. Kolesar, Hanyuan Shi, Ruzica Piskac. **Automated Feedback Generation for Competition-Level Code.** *ASE*, 2022.

## Industry Work Experience

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### Microsoft One Engineering System

*Research Intern, Remote*

*Summer 2022*

Supervisor: Josh Becker

Mentor: Grant Holliday

### Aretec Inc.

*Big Data Software Application Developer*

*Summer 2018, Summer 2019*

Contractor for U.S. Securities and Exchange Commission

New York City (2018)

Washington, D.C. (2019)

## Teaching Experience

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### Graduate Teaching Fellow at Yale University.....

#### CPSC 484/584: Introduction to Human-Computer Interaction

*Taught by Marynel Vázquez*

*Spring 2023*

#### CPSC 435/535: Building an Internet Router

*Taught by Robert Soule*

*Fall 2022*

#### CPSC 433/533: Computer Networks

*Taught by Anurag Khandelwal*

*Spring 2022*

#### CPSC 323: Introduction to Systems Programming and Computer Organization

*Taught by Ruzica Piskac and Rob Brunstad*

*Fall 2021*

### Undergraduate Teaching Assistant at Cornell University.....

#### CS 3110: Data Structures and Functional Programming

*Taught by Nate Foster*

*Spring 2020*

#### CS 4820: Introduction to Analysis of Algorithms

*Taught by Eva Tardos*

*Fall 2019*

#### CS 3110: Data Structures and Functional Programming

*Taught by Michael Clarkson*

*Fall 2018*

#### CS 2112: Honors Object-Oriented Design and Data Structures

*Taught by Dexter Kozen*

*Fall 2017*

## Other Work, Research, and Volunteering Experience

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### Cornell University

*Computer Science Research*

Research Advisor: Nate Foster

Subject: Software-Defined Networking with P4

**Ithaca, New York**

*Fall 2019, Spring 2020*

### Tenley Achievement Program

*Office Manager*

**Washington, D.C.**

*Summer 2017*

### National University of Colombia

*Web Chair for LPAR 2023*

**Manizales, Colombia (remote)**

*June 2023*

**Squash Haven**

*Computer Science Volunteer Tutor*

**New Haven, Connecticut**

*Spring 2023*

**Yale University**

*Ph.D. Student Buddy for Admitted Student Day*

**New Haven, Connecticut**

*Spring 2022*

**Skills**

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- Proficiency in Java, C, OCaml, Q, Haskell, Python
- Experience with JavaScript, TypeScript, Coq, Standard ML, C++, C#, Kusto
- Experience with Excel, LaTeX, Unity, Blender, VirtualBox, Docker