Yuchong Pan

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http://ypan.me

RESEARCH INTERESTS Programming languages and theoretical computer science – especially gradual typing, type systems, compilers, algorithms, theory of computation, theory of complexity, graph theory and combinatorial optimization.

EDUCATION

University of British Columbia

B.S., Computer Science and Mathematics, Combined Honours, expected 2021

EMPLOYMENT

Microsoft Corporation

Software Engineer Intern, 2020 Software Engineer Intern, 2019 Software Engineer Intern, 2018

University of British Columbia

Undergraduate Academic Assistant, 2019–2020 Undergraduate Teaching Assistant, 2019 Student Assistant, 2019

Undergraduate Teaching Assistant, 2018

Jisuanke

Teaching Researcher, 2018–2019 Lecturer, 2018–2019

Sogou, Inc.

Software Engineer Intern, 2017

InitialView

Software Engineer Intern, 2016–2017

RESEARCH EXPERIENCE

University of British Columbia

Gradual typing of recursive types, 2018–present

o Advisor: Ronald Garcia

TEACHING EXPERIENCE

University of British Columbia

Teaching Assistant

CPSC 421/501 Introduction to Theory of Computing (graduate), Fall 2019 CPSC 121 Models of Computation, Fall 2018

Academic Assistant

CPSC 411 Introduction to Compiler Construction, Fall 2019–Spring 2020

Involved in the redesign of the course, supervised by William J. Bowman.

Jisuanke

Lecturer

Competitive Programming, Level 6 Spring 2019 Competitive Programming, Level 5 Fall 2018 Competitive Programming, Level 3 Summer 2018

Teaching Researcher

Competitive Programming, Level 6 Spring 2019

VOLUNTEER EXPERIENCE

Shaoxing No.1 High School

Summer Coach (Competitive Programming), 2016 Student Lecturer (Competitive Programming), 2013–2015

Talks and Presentations

- Unsplittable Flow Problem on Paths and Trees: Closing the LP Relaxation Integrality Gap (with Adam Jozefiak). UBC CPSC 531F survey. University of British Columbia. Vancouver, BC. 2019. [Slides] [Report]
- Introduction to Communication Complexity. Quantum Club seminar. University of California, Santa Barbara. Santa Barbara, CA. 2019.
- Gradual Typing for Octave Language (with Ada Li, Kathy Wang, and Paul Wang).
 UBC CPSC 311 project. University of British Columbia. Vancouver, BC. 2018.
 [Report]

Honors and Awards

- Faculty of Science International Student Scholarship (CAD \$5,000), University of British Columbia, 2019.
- o Dean of Science Scholarship (CAD \$350), University of British Columbia, 2019.
- o Trek Excellence Scholarship (CAD \$4,000), University of British Columbia, 2019.
- Stanley M Grant Scholarship in Mathematics (CAD \$1,500), University of British Columbia, 2019.
- o Programming Language Implementation Summer School Fellowship (€400), 2019.
- Science Scholar / Dean's Honour List, University of British Columbia, 2019.
- Faculty of Science International Student Scholarship (CAD \$10,000), University of British Columbia, 2018.
- o Dean of Science Scholarship (CAD \$425), University of British Columbia, 2018.
- o Trek Excellence Scholarship (CAD \$4,000), University of British Columbia, 2018.
- Marie Kendall Memorial Scholarship in Science (CAD \$925), University of British Columbia, 2018.
- $\circ\,$ Joel Harold Marcoe Memorial Scholarship (CAD \$150), University of British Columbia, 2018
- o Science Scholar / Dean's Honour List, University of British Columbia, 2018.
- Outstanding International Student Award (CAD \$6,000), University of British Columbia, 2017.
- Silver Medal, China Team Selection Competition for International Olympiad in Informatics, China Computer Federation, 2015.
- Bronze Medal, Asia Pacific Informatics Olympiad, China Computer Federation, 2015.
- First Prize, National Olympiad in Informatics in Provinces (Advanced Division), China Computer Federation, 2014.
- \circ First Prize, National Olympiad in Informatics in Provinces (Advanced Division), China Computer Federation, 2013.

Selected Coursework

- Probability (graduate)
- Stochastic Processes (graduate)
- Submodular Optimization (graduate)
- o Combinatorial Optimization (graduate)
- Tools for Modern Algorithm Analysis (graduate)

- Introduction to Theory of Computing (graduate)
- o Real Variables
- Introduction to Software Engineering
- o Definition of Programming Languages
- \circ Introduction to Compiler Construction
- $\circ\,$ Intermediate Algorithm Design and Analysis
- Computer Hardware and Operating Systems

ACADEMIC

 $\circ\,$ Second Programming Language Implementation Summer School. Bertinoro, Italy.

Training 2019.

Relevant Skills Languages: English, Mandarin

Programming: LATEX, Racket, Standard ML, JavaScript, C/C++, Java, C#, Python,

Ruby, MATLAB, Go, MySQL

LAST UPDATED February 19, 2020