Christophe Dethier

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Summary

Recent mathematics PhD with excellent quantitative and analytic skills. Learns technical skills very quickly. Experience programming with various languages for applied mathematics, statistical modeling, and data manipulation. Thrives in a structured work environment with strong mentorship and opportunities for professional development.

Work Experience

Pure Mathematics Researcher, University of Oregon 2015-20

Researched number theory (diophantine approximation) over 5 years under mentorship of adviser Shabnam Akhtari and mentor Chris Sinclair, including 2 quarters with research funding from University of Oregon. Resulted in the publication below and PhD dissertation. Used Sage to perform computations in both.

Graduate Course Work, University of Oregon 2015-20

Relevant mathematics coursework during PhD program:
Graduate probability sequence during Winter 2015 and Spring 2015, taught by Professor Chris Sinclair. Passed probability qualifying exam.
Applied Mathematics during Fall 2019, taught by Professors Benjamin Young and Peter Ralph. Solved applied and combinatorial problems using mathematical reasoning and Python computations.
Applied Stochastic Processes during Winter 2020, taught by Professor Peter Ralph. Modeled stochastic processes using Python (numpy and matplotlib).

Undergraduate Mathematics Instructor, University of Oregon 20013-20

Sole instructor for 19 undergraduate mathematics courses totaling 594 students. Algebra, trigonometry, calculus (differential and integral), statistics, and discrete mathematics. Designed courses and syllabi based on master syllabi from department, gave lectures, and designed and graded homework and exams.
Teaching assistant for 3 courses totaling 346 students. Business calculus and statistics. Ran problem sessions, gave design input for homework and exams. Graded exams.

Actuarial Certifications

Exam P, January 2020
Exam FM, June 2020
Economics VEE, August 2020

Programming Languages

Python (numpy and matplotlib), Sage, C#, Excel.

Publications

C. Dethier. Diagonalizable quartic Thue equations with negative discriminant. *Acta Arithmetica* 193: 235-252, 2020.

Education

PhD in Mathematics, University of Oregon, 2020
Area of Study: Number Theory (Diophantine Approximation)
GPA 3.78

BA in mathematics, Carleton College, 2013
Distinction, Magna Cum Laude
GPA 3.6

References Available Upon Request