Ankit Kumar Jaiswal

Curriculum Vitae

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Motivation

I'm a **postgraduate in Mathematics** with a strong inclination towards **building automated solutions for decision making** tasks. Therefore, seeking opportunities where I can use my knowledge both in mathematical logic & analysis and, computer systems to come up with models written in scalable languages.

Education

2016 - 2017 **Master of Science in Mathematics**, *Indian Institute of Science*, Bangalore.
CGPA – 5.9(out of 8)

2012 - 2016 **Bachelor of Science (Research) in Mathematics**, *Indian Institute of Science*, Bangalore.
CGPA – 6.1(out of 8)

2012 **Senior Secondary Examination**, *CBSE*, DAV Public School, Anpara.
Percentage – 86

2010 **Secondary Examination**, *CBSE*, DAV Public School, Anpara.
GPA – 9.4(out of 10)

Relevant Courses

Probability and Statistics, Linear Algebra, Algebra, Real and Complex Analysis, Functional Analysis, Differential Equations, Logic Types and Spaces, Homotopy Type Theory

Algorithms and Programming, Automata Theory and Computability, High Performance Computing, Scientific Computing, Machine Learning

Technical Skills

Programming Language	C, Python, Scala
Multiprocessing Tools	OpenMP
Proof Assistants	Agda, Lean
Web Development Tools	HTML, CSS, JavaScript

Shell Scripting	Bash (Linux)
Version Controlling Tool	git, GitHub

Selected Projects

ParTEX - parser for formal proofs in a TEX file

2018-present	It parses mathematical papers (in its .tex form) in order to separate the actual mathematics from plain text, which can be used to develop (or train) automated theorem provers.
Language	Scala, using parser combinator
Link	https://github.com/Ankit-Jaiswal/ParTEX
Live Demo	https://ankit-jaiswal.github.io/partex/tex2web

Superficial - curves and other structures on surfaces

2016	It is a program written in Scala which identifies simple closed curves over an orientable surface (topology).
Language	Scala
Link	https://github.com/Ankit-Jaiswal/Superficial

Distributed Learning - a faster ML system

2017	It is an effort towards exploring ways of parallelizing existing ML system and coming up with improvements which is unique to parallelization.
Language	Python
Link	Presentation

Course Projects in Logic

2015 & 2017	Implemented Bezoult's Lemma and modulus function according to HoTT foundtions which is quite different from conventional first order logic.
Language	Agda, Lean
Link	https://ankit-jaiswal.github.io/demo.html

Extra-Curricular Activities and Achievements

2019	Qualified GATE in Computer Science being a mathematics graduate.
2016	Participated in the Open Day discussion at Maths Dept on AI vs Mathematics.
2015	Membered Pravega Finance Committee and managed online registration for workshops through consistent query or grievance redressal, which resulted 20% more registration than the previous year.
2013	Demonstrated few UG level Physics experiments to school kids during OPEN DAY at UG Dept.