

Kishlaya Jaiswal

+91 879 555 4465

@ kishlaya.j@gmail.com

in [kishlaya](#)

[kishlaya](#)

EXPERIENCE

Bank of America, Mumbai

Jun 2021 - Present

Analyst - Global Business Services

INTERSHIPS

Adobe, Noida

Apr - Jun 2021

MDSR Research Intern

- Analyzed different softwares for computing persistent homology like OpenPH, Ripser and Ripser++
- Studied sheaf cohomology and spectral sequences as tools for computing persistent homology in a distributed way
- Worked on improving PerMaViss, a spectral sequence algorithm for distributed persistent homology

Chennai Mathematical Institute, Chennai

Apr - Jun 2020

Research Intern

Advisor: Dr Samir Datta

- Surveyed research papers on Travelling Salesman Problem for cubic graphs
- Worked on a new technique to enumerate all Hamiltonian Cycles in a cubic graph using ear decomposition

Tata Institute of Fundamental Research, Mumbai

May - Jul 2019

Research Intern

Advisor: Dr Jaikumar Radhakrishnan

- Studied different paradigms of Quantum Algorithms in the circuit model including Quantum search algorithms and Quantum Fourier based algorithms
- Analyzed Quantum Random Walk based algorithms as a generalization of Grover's search algorithm
- Studied the work on Classical Verification of Quantum Computations by Urmilla Mahadev

AdviceQube, Remote

Jul - Sep 2018

Julia Developer

- Incorporated a separate platform to integrate fundamental stock data, extending financial research operations
- Built an automated setup which regularly downloaded new stock data, restructured it following a JSON schema and saved it in MongoDB
- Engineered caching in Redis to eliminate frequent database access ensuring faster performance guarantee by 30%

Vacation Labs, Goa

May - Jul 2018

Software Developer Intern

- Worked in a small team of 4 people to develop an analytics code injection plugin, entirely in Haskell
- Delivered the main project within 2/3 of the internship period; then re-wired the front-end for the plugin in Elm, introducing a side-effect in the tech-stack
- Coordinated with other Haskell teams to help deliver their projects within stipulated time

AimsQuant, Delhi

Jun - Jul 2017

Backend Engineering Intern

- Built a setup to analyse client's portfolio through backtesting and forward testing of trading strategies
- Architected a pipeline to transfer user's strategy to backend, simulate it on the available market data and continually send back the simulation results over a websocket connection

EDUCATION

Chennai Mathematical Institute, Chennai

Expected Jul 2021

MSc in Computer Science

CGPA: 9.88/10

Chennai Mathematical Institute, Chennai

Aug 2016 - Jul 2019

BSc (Hons) in Mathematics & Computer Science

CGPA: 9.23/10

PUBLICATIONS/PRE-PRINTS

S. Datta and **K. Jaiswal**, Parallel Polynomial Permanent Mod Powers of 2 and Shortest Disjoint Cycles, 2021.
arXiv: 2106.00714 [cs.CC]

K. Jaiswal, Paths, Cycles & Permanent: A bridge between Combinatorics and Algebra, 2021.

TEACHING ASSISTANT

Functional Programming in Haskell by NPTEL	Jan - Apr 2018, Aug - Dec 2019, Aug - Dec 2020
Stochastic Processes 1, instructed by B V Rao	Aug - Dec 2020
Algebra 2, instructed by Clare D'Cruz	Jan - Apr 2019
Probability Theory, instructed by B V Rao	Jan - Apr 2019
Advanced Programming, instructed by Samir Datta	Jan - Apr 2018
Programming in Haskell, instructed by S P Suresh	Aug - Dec 2017

PROJECTS

Mozilla DevTools React, Node.js

- Designed separate formatting for the control frame messages emitted via websocket connections
- Added an extra option to toggle control frame messages from the DevTools Inspector

InspiroBot API Coffeescript

- Extracted API from the raw source code of InspiroBot website
- Deployed a bot over this API to generate inspirational quotes and images

Windows Web 8 HTML5, CSS3/SCSS, jQuery

- Developed a functional web mockup of the Microsoft Windows 8 with an interactive Metro UI design

SKILLS

Programming Languages: Python, Javascript, Haskell

Frameworks/Libraries: Node.js, React, Elm, Polymer, HTML5, CSS3

Tools: MongoDB, Redis, Docker, Git

AWARDS

Cognizant Foundation Masters scholarship	2019
Shriram Undergraduate scholarship	2016
Adventures of The Mind scholarship - sponsored by Brilliant.org	2015
SOF's National Cyber Olympiad scholarship	2014
SOF's International Mathematics Olympiad scholarship	2014
Regional Mathematics Olympiad Qualifier	2013

COMMUNITY SERVICE

Developed college website: http://iiitmanipur.ac.in	2015 - 16
Problem Writer: Proofathon	2014 - 16
<ul style="list-style-type: none">• Helped to create online mathematical contest for high school students all around the world	