Personal details

Personal details

First / given name	Jash
Second given name	
Third given name	
Surname/family name	Shah
Date of birth	27 September 2001
Preferred first/given name	Jash
Previous surname	
Country of birth	India
Legal nationality	Indian
Dual nationality	
Country of residence	India
Have you previously studied with us at the University of Bristol?	No

Contact details

Home address

Please provide your permanent residential address. If you have another address and would prefer for us to contact you at that address instead you have the opportunity to add a correspondence address in the next section.

Country	India
Postcode	600010
Address Line 1	A202, Khushal Garden
Address Line 2	New 448 Old 745 Ph Road
City	Chennai
County	Tamil Nadu
Telephone	

If you would like us to send any postal correspondence to an address which is not your home address please enter an alternative address here. If you want us to send correspondence to your home address then please select No.

Do you want to add a correspondence address?	No
Country	India
Postcode	600010
Address Line 1	A202, Khushal Garden
Address Line 2	New 448 Old 745 Ph Road
City	Chennai
County	Tamil Nadu
Telephone	

Agent

Agent details

Agency Name	
Email address	

Other information

Additional Documents

Please upload required documents as outlined in your admissions statement

Mode of study

How would like to study this programme?	Full Time

Qualifications

Qualifications

Institution	Qualification	Type	Subject	Actual/predicted	Grade	Start date	End date
University of Glasgow	Master's Degree (PG)	Academic Qualification	Mathematics	Predicted	sem 2 yet to be	11/Sep/2023	11/Sep/2024
KREA University	Postgraduate Diploma	Academic Qualification	Mathematics	Actual	8.43	16/Aug/2022	01/Jul/2023
KREA University	First degree BA/BSC etc OS	Academic Qualification	Mathematics	Actual	9.13	13/Aug/2019	02/Jul/2022

If these qualifications have altered since your last application please note the changes in the free text box here.

English Language

Is English your first language? No
What is your first language? Gujarati
Did you study at school/university where you were taught in English? Yes
For how many years? 10
Have you sat a relevant English language test? Yes

TOEFL (internet-based)

Registration number
Date of TOEFL test
TOEFL reading score
TOEFL listening score
TOEFL speaking score
TOEFL writing score
TOEFL total score

IELTS (International English Language Testing System)

Test report form (TRF) number 22IA050799SHAJ008A
UKVI number (if applicable)
Date of IELTS test 25 November 2022
IELTS listening score 9.0
IELTS reading score 7.5
IELTS writing score 6.5
IELTS speaking score 6.5
IELTS total score 7.5

Pearson Test of English

Score report code
Date of Pearson test
Pearson listening score
Pearson reading score
Pearson speaking score
Pearson writing score
Pearson overall score

Other English Language test

Name of course	
Registration number	
Date of test	
Listening score	
Writing score	
Reading score	
Total score	

Experience

Current Employer

Employer name and address	
Job title and main duties	
Full time/Part time	
Date of Appointment	
End date (if applicable)	

Previous employment 1

Employer name and address	
Job title and main duties	
Full time/Part time	
Date of Appointment	
End date (if applicable)	

Previous employment 2

Employer name and address	
Job title and main duties	
Full time/Part time	
Date of Appointment	
End date (if applicable)	

Previous employment 3

Employer name and address	
Job title and main duties	
Full time/Part time	
Date of Appointment	
End date (if applicable)	

Other Experience

Do you have any other relevant work experience to support your application?	Yes
Please provide details	Teaching assistant at Krea University for the courses Mathematical Methods for Economics and Proofs and Ideas - Introduction to Mathematical Thinking

Personal statement

Personal details

Do you have a personal statement to upload?	No
Please type your personal statement in the box	-

Research proposal

Research proposal

Proposed supervisor 1	Dr John Mackay
Proposed supervisor 1	Dr Viveka Erlandsson
Proposed project title (max 150 chars)	Geometric group theory/low dimensional topology

Passport and visa

Visa required

Do you require a visa to study in the UK?	Yes

Please fill out your passport details below. If you are unable to provide these at the current time you will have another opportunity to upload your passport after you submit the form. If you do not provide us with this information we will be unable to issue you with your confirmation of acceptance number and you will be unable to obtain a visa.

Passport details

Passport number	Z6744782

Further details

Have you previously studied in the UK?	Yes
What was the highest level of study in the UK?	MSc
Please confirm the total length of your UK study in years	1

Referees

Referee 1

Do you have a reference to upload?	No
Type of reference	Academic
Referee title	Dr
Forename	Dinakar
Surname	Muthiah
Position	Lecturer in Pure Mathematics
Institution/Company	University of Glasgow
Email address	dinakar.muthiah@glasgow.ac.uk
Country	United Kingdom

Referee 2

Do you have a second reference to upload?	No
Type of reference	Academic
Referee title	Dr
Forename	Rishi
Surname	Vyas
Position	Assistant Professor of Mathematics
Institution/Company	Krea University
Email address	rishi.vyas@krea.edu.in
Country	India

Funding

Funding 1

What is your likely source of funding?	University of Bristol scholarship
Please give the name of your scholarship or Studentship	
Please specify	
Percentage from this source	100
Is this funding already secured?	No

Funding 2

What is your likely source of funding?	
Please give the name of your scholarship or Studentship	
Please specify	
Percentage from this source	
Is this funding already secured?	

Funding 3

What is your likely source of funding?	
Please give the name of your scholarship or Studentship	
Please specify	
Percentage from this source	
Is this funding already secured?	

Other funding

I would like to be considered for other funding opportunities	Yes

Submission

Documents

Document type	File name
Passports and visas	passport_first_and_last_page.pdf
Language qualification	IELTS_eTRF.pdf
Passports and visas	UK Student Visa.pdf
Curriculum vitae	Bristol_CV.pdf
Degree certificate	PG Diploma Certificate - 2023.pdf
Transcript	PGD in Mathematics - Consolidated Transcript.pdf
Research proposal	Research Statement - University of Bristol.pdf
Degree certificate	BScHonsMathematicsDegreeCertificate.pdf
Transcript	BSc (Hons) Mathematics - Consolidated Transcript.pdf
Transcript	Programme ongoing.pdf

By ticking the checkbox below and submitting your completed online application form, you acknowledge the University of Bristol will use the information provided from time to time, along with any further information about you the University may hold, for the purposes set out in the University's full Data Protection Statement. Applicants applying to the collaborative programmes of doctoral training should also read the Data Protection Statement for collaborative programmes of doctoral training.

The information that you provided on your application form will be used for the following purposes:

- To enable your application for entry to be considered and allow our Admissions Advisors, where applicable, to assist you through the application process;
- To enable the University to compile statistics, or to assist other organisations to do so. No statistical information will be published that would identify you personally;
- To enable the University to initiate your student record should you be offered a place at the University.

All applicants should note that the University reserves the right to make without notice changes in regulations, courses, fees etc at any time before or after a candidate's admission. Admission to the University is subject to the requirement that the candidate will comply with the University's registration procedure and will duly observe the Charter, Statutes, Ordinances and Regulations from time to time in force.

By ticking the checkbox below and submitting your completed online application form, you are confirming that the information given in this form is true, complete and accurate and that no information requested or other material information has been omitted. You are also confirming that you have read the Data Protection Statement and you confirm the statement below.

I can confirm that the information I have provided is true, complete and accurate. I accept that the information given in my application will be stored and processed by the University of Bristol, in accordance with the *UK General Data Protection Regulation and Data Protection Act 2018*, in order to:

- Consider my application and operate an effective and impartial admissions process;
- Monitor the University’s applicant and student profile;
- Comply with all laws and regulations;
- Ensure the wellbeing and security of all students and staff;
- If my application is successful to form the basis of the statement made within my application.

If the University of Bristol discovers that I have made a false statement or omitted signification information from my application, for example examination results, I understand that it may have to withdraw or amend its offer or terminate my registration, according to circumstances.

|

EDUCATION

Master of Science | ***Mathematics*** Sep. 2023 – Sep. 2024
University of Glasgow, UK
- Coursework intended to be completed: Algebraic and Geometric Topology, Advanced Differential Geometry and Topology, Lie Theory, Advanced Algebraic and Geometric Topology, Advanced Functional Analysis, Further Group Theory

Post Graduate Diploma | ***Mathematics*** Aug. 2022 – May 2023
Krea University, India
- CGPA: 8.43

Bachelor of Science (Honours) | ***Mathematics*** Aug. 2019 – May 2022
Krea University, India
- CGPA: 9.13
- Dean's List 2021

RESEARCH EXPERIENCE AND PROJECTS:

Polymath Jr. REU - *Strength and Symmetry of Polynomials* Aug. 2023
- computed the strengths of polynomials associated to some classes of graphs using Macaulay2
- characterised polynomials up to a certain strength using ranks of graphs
- supervised by Prof. Alexandra Seceleanu, University of Nebraska-Lincoln

Undergraduate Capstone Thesis - *Fundamental Groups and the Seifert-Van Kampen Theorem* June 2022
- supervised by Prof. C P Anil Kumar, Krea University

Reading Project - *Topology* by Prof. James Munkres June 2021
- supervised by Prof. Krishna Hanumanthu, Chennai Mathematical Institute

TUTORING EXPERIENCE:

Teaching Assistant - Proofs and Ideas: An Introduction to Mathematical Thinking May 2023
- attended lectures
- prepared problem sets along with solution sets

Teaching Assistant - Mathematical Methods for Economics Oct 2022
- took weekly tutorials
- held office hours

COMPUTATIONAL SKILLS

- Programming Languages: Python, C0, Haskell, MATLAB
- Theorem Provers and Proof Assistants: Lean, Isabelle
- Computer Algebra Systems: Macaulay2

EXTRACURRICULARS:

Volunteer - *Groups and Computation* Workshop, National Centre for Mathematics, India July 2023
- helped out with logistics and designed certificates for participants

***Mathematical Training and Talent Search* Programme** May 2022
- was selected for the MTTS programme at IISER Thiruvananthapuram

KREA UNIVERSITY

(Established under the Andhra Pradesh Private Universities
[Establishment and Regulation] [Amendment] Act, 2018)

Upon the recommendation of the faculty,
School of Interwoven Arts and Sciences,
hereby confers upon

Jash N Shah

Postgraduate Diploma

in

Mathematics

With all the honours, rights, privileges and obligations
pertaining to that Diploma in testimony
whereof this Diploma is conferred at
Krea University, Sri City, Andhra Pradesh

This first day of July 2023

CHANCELLOR

VICE-CHANCELLOR

KREA university

Krea University

(Established under The Andhra Pradesh Private Universities
[Establishment and Regulation] [Amendment] Act, 2018), Sri City, Andhra Pradesh

Upon the recommendation of the faculty of the School of Interwoven Arts and Sciences
hereby confers the degree of

Bachelor of Science (Honours)

in

Mathematics

on

Jash N Shah

upon successful completion of the prescribed graduation requirements
Awarded this day the second of July two thousand twenty-two

Chancellor

Vice-Chancellor

Scanned by TapScanner

Research Statement - University of Bristol

I am fascinated by how topology and group theory interact. One example of this is that topology gives us insights about the behaviour of free groups. Because free groups seem massive, I always assumed that they can have infinitely many subgroups of a particular index. So, I was confused when Prof. Belk, our topology professor, showed us three possible two-sheeted coverings of the figure-eight space and then said that these were the only possible ones. I was confused because it implies (by the Galois correspondence) that the free group on two generators has only three index-2 subgroups, which felt quite unintuitive at the time. It becomes more believable when I think of n-sheeted coverings instead of n-index subgroups of free groups because then it seems to turn into a problem of counting the number of graphs satisfying some restrictive properties. I want to continue in the same direction. I want to do research in topology, group theory, or any combination of the two.

Based on coursework that I have enjoyed the most, I see myself working under Dr John Mackay, Dr Viveka Erlandsson, or Dr Mark Hagen. Since I am interested in teaching mathematics too, I really like that the University of Bristol gives significant importance to pedagogy through the Institute of Learning and Teaching in Mathematics. Also, in addition to the Algebra and the Geometry and Topology seminars, I find the Bristol Junior Geometry Seminar very appealing.

The idea of doing research excites me. During the Polymath REU under Prof. Alexandra Seceleanu, our group worked on figuring out the strengths of polynomials. I proved some results and then learnt to use Macaulay2 which helped me identify patterns in the strengths of certain classes of polynomials, which turned into conjectures. Since classification problems seem important in many areas, I wanted to see if I could classify a certain class of polynomials by their strengths. I found some papers whose results helped me partially classify this class of polynomials by their strengths.

Something that is just as enjoyable and important to me as research is tutoring. Duties like taking tutorials, making problem sets and making solutions sets, and holding office hours have allowed me to review and strengthen my understanding of topics I have seen earlier. In some cases where I am not familiar with a slightly tangential undergraduate topic, I have learnt to quickly learn the topic well enough to teach it.

An experience slightly different from my experiences in research and tutoring was the volunteering opportunity at the NCM workshop on Groups and Computation. The environment created by the professors and graduate students at this workshop is something I liked being a part of because it was a healthy community of people with different mathematical backgrounds passionately discussing mathematics as equals and learning from each other. I would love to be a part of the mathematical community at Bristol where I will work hard to achieve my goal which is to become a mathematician. I am grateful for the opportunity, thank you very much for considering my application.

SIAS SCHOOL OF INTERWOVEN ARTS AND SCIENCES
KREA UNIVERSITY

Postgraduate Diploma 2022-2023

Consolidated Academic Record

Student Name: **Jash N Shah**
Student Roll no: **SIASPG2022-0015**

Date Joined: August 16, 2022
Date Graduated: July 01, 2023

A. Major Courses: Mathematics

S.No.	Course Code	Trimester	Course Title	No. of Credits	Academic Trajectory Grade	Learning Trajectory Assessment
1	MATH402	PT1	Number Theory	4	A-	Excellent
2	MATH401	PT1	Complex Analysis	4	A	Excellent
3	MATH415	PT2	Topology	4	B	Proficient
4	MATH410	PT2	Commutative Algebra	4	A	Excellent
5	MATH490	PT2	Independent Study: Introduction to Semisimple and Artinian Rings	4	B	Proficient
6	MATH311	PT3	Introduction to Graph Theory	4	A-	Proficient
7	MATH425	PT3	Measure Theory	4	C+	Proficient
8	MATH427	PT3	Algebraic Curves	4	B-	Satisfactory
9	MATH491	PT3	Independent Study: Introduction to Representation Theory and the Theory of Noetherian Rings	4	B-	Proficient

B. Other Courses:

S.No.	Course Code	Trimester	Course Title	No. of Credits	Academic Trajectory Grade	Learning Trajectory Assessment
1	COMP403	PT1	Numerical Methods	4	B-	Proficient

Total Credits and Overall CGPA Details

Total Credits	Overall CGPA
40	8.43

Given at the Convocation held on the First Day of July, Two Thousand and Twenty Three

Controller of Examinations

KREA university

Dean

SIAS SCHOOL OF INTERWOVEN ARTS AND SCIENCES
KREA UNIVERSITY

Notes to Academic Record

1. About Krea University:

Krea University has been enacted by the Legislature of the State of Andhra Pradesh as per The Andhra Pradesh Private Universities (Establishment and Regulation) (Amendment) Act, 2018 vide the gazette notification published on April 30, 2018.

Krea University is listed on the UGC website under State Private Universities.

Krea University is authorised to confer degrees as decided by the Faculty of the University.

2. Medium of Instruction:

The medium of instruction for the entire course is English.

3. Evaluation System:

a) A Trimester is of 10 to 12 weeks duration.

b) A one-credit course comprises of 15 contact hours including tutorials.

4. Grading System:

Each course will involve multiple assessment touch points with continual feedback. Students will be assessed on a variety of assignments that elicit depth and breadth of understanding and critical inquiry, as necessitated by the course, major, discipline, and our interwoven learning philosophy Academic Trajectory is based on performance in assessment categories

1. Knowledge / Internalisation / Conceptual clarity,
2.Interpretation / Implementation / Practice / Critical thinking,
3.Communication [verbal and non-verbal]) of a course and the overall marks of these
categories are converted to a letter grade as per the Assessment Scale given below.

Learning Trajectory is based on the qualitative assessment categories

1. Diligence,
2. Adaptability / Agility / Resilience,
3. Collaboration
4. Creativity / Imagination) of a course.

The overall marks of these categories are converted to a Learning Trajectory Assessment and graded on a scale of Outstanding, Excellent, Proficient, Satisfactory and Unsatisfactory

Assessment Scale:

Score range (%)	Letter Grade	Grade point
98-100	A+	10
95-97	A	9.6
90-94	A-	9.2
85-89	B+	8.7
80-84	B	8.2
75-79	B-	7.7
70-74	C+	7.2
65-69	C	6.7
60-64	D	6.2
50-59	E	5.5
0-49	U	0

Trimester Grade Point Average (TGPA) and Cumulative Grade Point Average (CGPA):

TGPA is the weighted average of the grade points obtained in the credit earning courses registered for, in a particular trimester
(weights being the respective course credits).

CGPA is the weighted average of the grade points obtained in all the credit earning courses that a student has registered for, till the specified Trimester
(weights being the respective course credits).

TGPA and CGPA will range from 0 to 10 and will be calculated up to the second decimal place.

The conversion for the CGPA into percentage is:
CGPA obtained by the Student / 10 * 100

Campus: 5655, Central Expressway, Sri City, Andhra Pradesh 517646
Admin office: No: 196, T.T.K. Road, Alwarpet, Chennai 600018
krea.edu.in

B.Sc. (Honours) 2019-22

CONSOLIDATED ACADEMIC RECORD

Name : **Jash N Shah**

Roll No. : **SIASUG2019-0039**

Date Joined: **August 13, 2019**

Date Graduated: **July 02, 2022**

A. Core Courses:

S.No.	Course Code	Trimester	Course Title	No. of Credits	Academic Trajectory Grade	Learning Trajectory Assessment
1	KCCS102	I	Mathematical Reasoning	3	A+	Outstanding
2	KCCS103	I	Creative Expression	3	A-	Satisfactory
3	KCCS121	II	Scientific Reasoning	3	B-	Excellent
4	KCCS122	II	Exploring the Social and the Historical	3	A-	Excellent
5	KCCS123	II	Philosophical Perspectives Across Cultures	3	B+	Proficient
6	KCCS131	III	Literature and the Arts	3	A+	Outstanding

B. Skill Courses:

S.No.	Course Code	Trimester	Course Title	No. of Credits	Academic Trajectory Grade	Learning Trajectory Assessment
1	KCCS101	I	Writing and Oral Communication	3	B	Proficient
2	KCCS124	II	Data Analytics	3	B+	Excellent
3	KCCS132	III	Ethics	3	B+	Excellent
4	KCCS133	III	Design Thinking	3	B+	Excellent
5	KCCS134	III	Introduction to Topics in Computer Science	3	B+	Excellent
6	KCCS190	IX	Engaging with the Environment	3	B+	Proficient

C. Major Courses: Mathematics

S.No.	Course Code	Trimester	Course Title	No. of Credits	Academic Trajectory Grade	Learning Trajectory Assessment
1	MATH201	IV	Analysis 1: Numbers, Sequences, and Series	4	A-	Outstanding
2	MATH206	IV	Discrete Mathematics	4	A+	Outstanding
3	MATH151	V	A Social History of Post-Renaissance Mathematics	1	A-	Excellent
4	MATH202	V	Analysis 2, Calculus of Single Variable	4	A-	Outstanding
5	MATH211	V	Linear Algebra-I	4	A-	Outstanding
6	MATH216	VI	Algebra-I: Introduction to Groups and Rings	4	A+	Excellent
7	MATH221	VI	Probability	4	A	Outstanding
8	MATH226	VII	Differential Equations	4	B+	Excellent
9	MATH301	VII	Analysis-3: Spaces of Functions and Metric Spaces	4	B+	Outstanding
10	MATH306	VII	Linear Algebra-2	4	A-	Outstanding
11	MATH156	VIII	Writing and Communication in Mathematics	2	A-	Proficient
12	MATH302	VIII	Analysis-IV: Multivariable Calculus	4	B+	Outstanding
13	MATH316	VIII	Algebra-2	4	A-	Outstanding
14	COMP111	VIII	Ethics in Mathematical and Computational Sciences	1	A-	Proficient
15	MATH390	IX	Capstone	8	A-	Excellent
16	MATH326	IX	Computational methods for mathematics	2	A-	Excellent
17	MATH351	IX	Combinatorics	4	A	Excellent

D. Other Courses:

S.No.	Course Code	Trimester	Course Title	No. of Credits	Academic Trajectory Grade	Learning Trajectory Assessment
1	COMP203	VI	Mathematical Foundations of Computer Science-II	4	B	Satisfactory
2	COMP206	IV	Paradigms of Programming I: Imperative Computation	4	B+	Proficient
3	COMP207	VI	Paradigms of Programming-II: Functional Programming	4	A+	Outstanding
4	COMP230	VII	Logic	4	A+	Excellent
5	ECON212	V	Statistics for Economics	4	A	Outstanding
6	PHYS201	IV	Mathematical Methods I	4	B+	Excellent
7	PHYS202	V	Mathematical Methods-II	4	A-	Outstanding
8	PHYS223	IX	Classical Physics: Spacetime	2	B+	Excellent

Total Credits and Overall CGPA Details

Total Credits	Overall CGPA
128	**9.13**

Major: Mathematics

Issued on Second Day of July Two Thousand Twenty-Two.

Controller of Examinations
Krea University

Dean
School of Interwoven Arts and Sciences

Programme ongoing - no transcript yet

IELTS™

Test Report Form

ACADEMIC

NOTE *Admission to undergraduate and post graduate courses should be based on the ACADEMIC Reading and Writing Modules. GENERAL TRAINING Reading and Writing Modules are **not** designed to test the full range of language skills required for academic purposes. It is recommended that the candidate's language ability as indicated in this Test Report Form be re-assessed **after two years** from the date of the test.*

Centre Number	IA008	Date	25/NOV/2022	Candidate Number	050799

Candidate Details

Family Name	SHAH
First Name	JASH NIRAJ
Candidate ID	Z6744782

Date of Birth	27/09/2001	Sex (M/F)	M	Scheme Code	Private Candidate

Country or Region of Origin	
Country of Nationality	INDIA
First Language	GUJARATI

Test Results

Listening	Reading	Writing	Speaking	Overall Band Score	CEFR Level
9.0	7.5	6.5	6.5	7.5	C1

Administrator Comments

Centre stamp

idp IELTS TEST CENTRES IA008

Validation stamp

VALIDATION STAMP IELTS CAMBRIDGE ENGLISH/BRITISH COUNCIL/IDP

Administrator's Signature

Date 28/11/2022

Test Report Form Number 22IA050799SHAJ008A

SIAS SCHOOL OF INTERWOVEN ARTS AND SCIENCES
KREA UNIVERSITY

5655 Central Expressway,
Sri City, Andhra Pradesh,
517 646 India
http://krea.edu.in/sias/

Rishi Vyas
Assistant Professor of Mathematics
Division of Sciences, Krea University
Email: rishi.vyas@krea.edu.in
Tel: +91 8447056362

Letter of Recommendation for Jash Shah

29 December 2023

To Whom It May Concern:

I am writing this letter in strong support of Jash Shah's application for your programme. I believe that with his interest and ability in mathematics and his general enthusiasm and diligence, Jash has displayed the potential to perform very well in your programme.

During his undergraduate degree at Krea, I taught Jash in eight courses. Six of these were mathematics courses which formed a foundational part of the undergraduate mathematics major programme at Krea: a 4 credit course in analysis in the first trimester of the 2020-21 academic year; a 4 credit first course in linear algebra in the second trimester of the 2020-21 academic year; a 4 credit course in probability in the third trimester of the 2020-21 academic year; a 4 credit second course in linear algebra in the first trimester of the 2021-2022 academic year, and two 4 credit courses in the second trimester of the 2021-22 academic year: a course in multivariable analysis, and a second course in abstract algebra. I also taught Jash as a co-instructor in a 1 credit history of mathematics course and as a co-instructor in a 2 credit mathematical writing course.

Jash consistently performed very well in all of the courses I taught him. In Analysis 1 he finished third in a class of thirty one; in Linear Algebra 1 he finished third in a class of twenty four; in Probability he finished first (jointly with another student) in a class of twenty two; in Linear Algebra 2 he finished second in a class of ten. The two classes I taught him in the second trimester of the 2021-22 academic year had a smaller class size, but again Jash did very well: in Analysis 4, he finished second in a class of six, while in Algebra 2 he finished second in a class of five (and was very close to finishing at the top of the class). It is my understanding that his performance in mathematics courses taught by other instructors has also been strong, and he has consistently finished at or near the top of his classes. In all the courses I taught him, Jash's coursework was well written and consistently displayed a good understanding of course material. Jash also displayed a sense of curiosity and interest in the subject matter that went beyond his coursework: he developed the habit of reading beyond the course material and working through problems apart from those he has been assigned. I should add that Jash's performance would have been very good by any standard, but especially so given the extraordinary circumstances we have all faced due to the COVID-19 pandemic. In addition to the courses he took as a part of his mathematics major, Jash developed his interest in mathematics by taking mathematics related courses in the computer science, physics, and economics programmes, along with a number of other computer science courses. It is my understanding that his performance in these courses was also very strong.

After his undergraduate degree, Jash completed a one year postgraduate diploma at Krea with a specialisation in mathematics. As a part of this programme, I supervised Jash for a two 4 credit independent studies course on topics in the theory of finite dimensional, Artinian and Noetherian

SIAS SCHOOL OF INTERWOVEN ARTS AND SCIENCES
KREA UNIVERSITY

5655 Central Expressway,
Sri City, Andhra Pradesh,
517 646 India
http://krea.edu.in/sias/

algebras. Independent studies courses are self-motivated and conceived at the initiative of the student taking them. During these courses Jash was tasked with reading through material on his own and then presenting it to me in weekly meetings. These weekly presentations were well-structured and thorough. Jash's intellectual ability, curiosity, honesty, and agility were all visible during my time supervising him for these courses: he asked interesting questions about the material, was open about aspects of his readings that challenged him, and rapidly mastered those aspects when they were discussed.

During the summer between his second and third academic years, Jash participated in a reading course on point set topology with Dr Krishna Hanumanthu at the Chennai Mathematical Institute. He enjoyed his experiences during this programme, and continued to develop his interest in topology by working on a project on aspects of algebraic topology for his undergraduate thesis under the supervision of Prof. Bharath Sethuraman and Dr. C.P. Anil Kumar. During the summer between his final undergraduate year and the start of his postgraduate diploma programme, Jash participated in the Polymath Jr. programme, where he worked on a project describing certain links between complex analysis, linear algebra, and projective geometry under the supervision of Prof. Yunus Zeytuncu at the University of Michigan-Dearborn and Prof. Mehmet Çelik at Texas A&M University. During this same summer Jash was also selected to participate in the Mathematical Training and Talent Search programme, but had to drop out shortly after the programme began due to injury. During the summer following his postgraduate diploma, Jash was a volunteer for a workshop on Groups and Computation that took place at Krea in July 2023. In addition to his volunteering duties, Jash also participated in the workshop by attending lectures and interacting with the other participants.

Jash is currently completing a masters degree in mathematics from the University of Glasgow: following this, I believe Jash will be well-placed to begin his doctoral studies. Jash will benefit from the opportunities that your programme will provide, both in terms of pushing himself to learn and think about interesting and challenging mathematics, but also because of the chance to interact with other motivated students from his peer groups and gain further exposure to the environment of a strong mathematics department. He is talented, has performed well academically and displayed a great deal of enthusiasm for mathematics. He has my strong recommendation for your programme. Please do not hesitate to contact me if you have any questions.

Jash's English language reading, writing, and comprehension skills are at the level of a native speaker.

Sincerely,

Rishi Vyas

भारत गणराज्य / REPUBLIC OF INDIA

टाईप / Type
P

कोड / Code
IND

राष्ट्रीयता / Nationality
भारतीय / INDIAN

पासपोर्ट न. / Passport No.
Z6744782

उपनाम / Surname
SHAH

दिया गया नाम / Given Name(s)
JASH NIRAJ

जन्मतिथि / Date of Birth
27/09/2001

लिंग / Sex
M

जन्म स्थान / Place of Birth
CHENNAI,TAMIL NADU

जारी करने का स्थान / Place of Issue
CHENNAI

जारी करने की तिथि / Date of Issue
24/06/2022

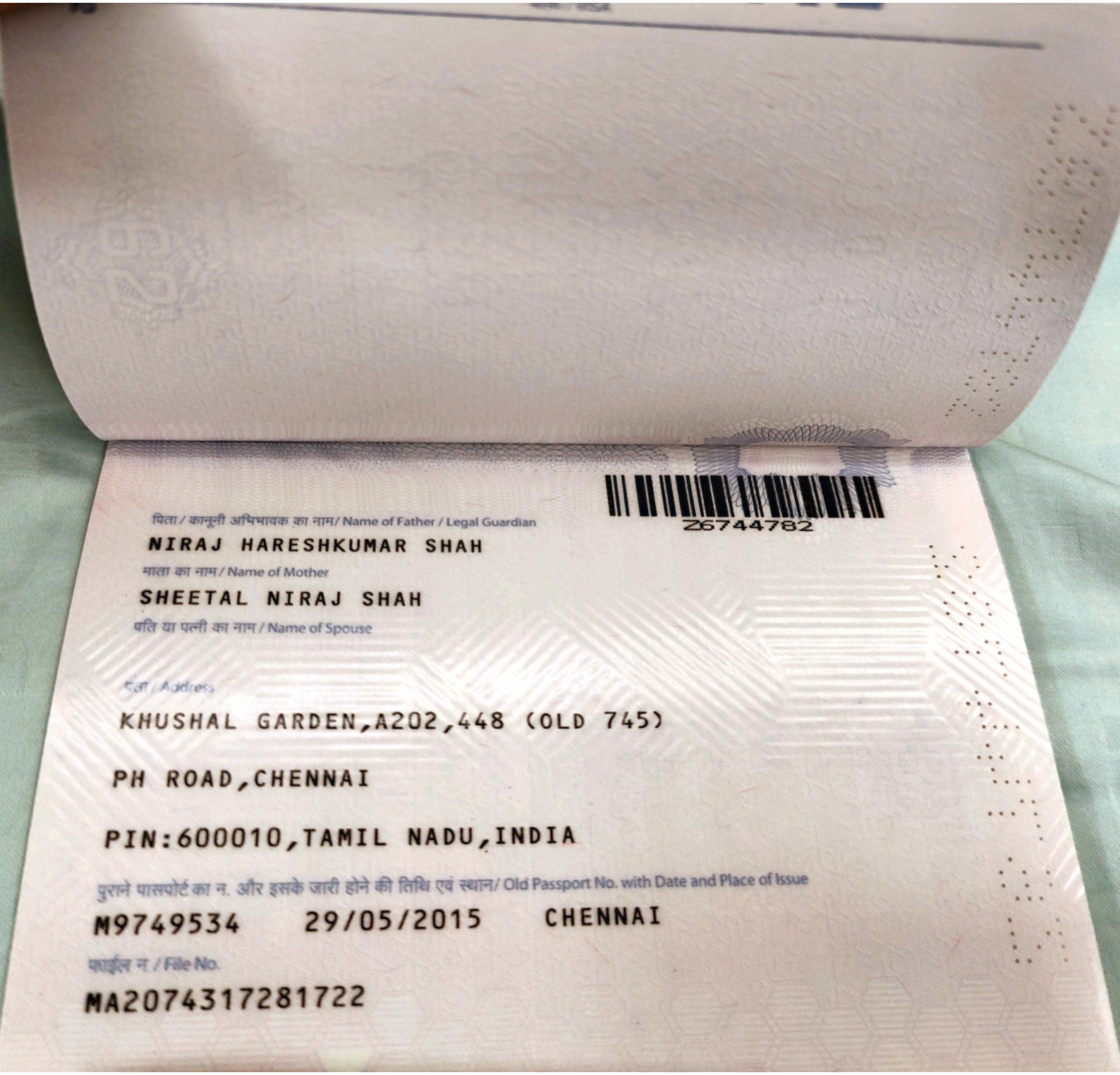
समाप्ति की तिथि / Date of Expiry
23/06/2032

L

P<INDSHAH<<JASH<NIRAJ<<<<<<<<<<<<<<<<<<<<<<<<

Z6744782<9IND0109279M3206238207431728172 2<64

Scanned by Scanner Go



Scanned by Scanner Go

Scanned by Scanner Go