JEONG GYU IM

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EDUCATION

MSci Mathematics, University College London

Oct 2019 - Present

- Predicted Grade: First Class. Top 4% in 3^{rd} year.
- \bullet Modules Taken: Groups and Rings 94%, Algebraic Number Theory -

91%, Galois Theory - 90%, Electromagnetism - 90%.

RESEARCH EXPERIENCE

Class Field Theory

Nov 2022 - Mar 2022

• Independently studied main results of Class Field Theory. Consequently applied the theory to prove Reciprocity laws and Inverse Galois Problem for D_{2n} .

Analytic Class Number Formula

Jul 2022 - Aug 2022

• Proved the analytic class number formula. Used the result in order to prove equivalent definition of Regular primes via Bernoulli numbers.

Iwasawa Theory

Sep 2022 - Dec 2022

• Studied new techniques and methods introduced by Iwasawa in 1950's. Proved Herbrand's Theorem and used Iwasawa's construction of *p*-adic *L*-functions in order to prove that class numbers of infinite extensions are well-behaved.

SOCIETIES AND EXTRA-CURRICULAR ACTIVITIES

Co-director of UCL Maths Colloquium

Aug 2022 - Jun 2023

- Organised and successfully launched the first UCL Integration Competition with over 20 students in attendance.
- Provided talks on various topics in Number Theory: Abelian extensions of Imaginary Quadratic fields, Primes of the form $x^2 + 27y^2$, Projective Surfaces over Finite Fields etc.

Lead guitarist in UCL Live Music Society

Nov 2021 - Jan 2023

• Part of Rhapsody 2022 and 2023; role: Lead Guitarist for Van Halen medley.

WORK EXPERIENCE

Love Learning Tutors

Aug 2021 - Apr 2022

• Taught A-level Maths and Physics.

The Petite Coree

Aug 2021 - Dec 2021

• Worked in a kitchen as a kitchen porter.

SKILLS

Languages

• Russian (native), English (fluent), Korean (beginner)

Programming

- Python (Proficient)
- HTML, CSS (Proficient)
- LaTeX (Proficient)
- SQL (Intermediate)