Kexin Gu Baugh

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Education

Imperial College London – PhD Computing 2021 - 2025

- Research area: neuro-symbolic AI – combining classical logic-based learning with neural networks
- Supervised by Prof. Alessandra Russo. Member of SPIKE research group.

Imperial College London – MEng Computing 2017 - 2021
Computing (Artificial Intelligence and Machine Learning) – First Class Honours (77.57%)

- Final year individual project: HACR: Hybrid Architecture for Concept Reasoning- 86.00%
- Research relevant modules: Logic-Based Learning - 76.97%, Knowledge Representation - 72.20%, Deep Learning - 73.83%

Publications

Neuro-symbolic Rule Learning in Real-world Classification Tasks, Kexin Gu Baugh, Nuri Cingillioglu, Alessandra Russo, AAAI-MAKE 2023 - full paper, code part 1 & part 2

Tearching Experience

Introduction to Prolog - Graduate Teaching Assistant 2021/2022, 2022/2023
Undergraduate course, Imperial College London, Department of Computing

Logic - Graduate Teaching Assistant 2021/2022
Undergraduate course, Imperial College London, Department of Computing

Work Experience

ThousandEyes - *Software Engineer Intern* April - September 2020
Joined Endpoint Agent team and worked with the backend team on a new product of the company. Experienced professional software development and full DevOps cycle.

ThousandEyes - *Software Engineer Intern* July - September 2019
Joined ThousandEyes' Endpoint Agent team. Worked for both frontend and backend team to help building the webapp. Gained experience in developing in Spring Boot and Vue.

Software Engineering Projects

Tamagucci – Python, Javascript IC Hack 20 group project, Feb 2020
A gamified pet drone that interacts and plays with you. By converting your speech to text and extracting the sentiments of the sentences through natural language processing, the drone will either act as your command if his satisfaction is high, or not do anything if he's upset. Won the 'Best Entertainment Hack' prize in IC Hack 20. Links: *Project DevPost*, *GitHub*, *YouTube demo*

Drone Playground – Javascript, Python 3rd year group project, Oct - Dec 2019
A teaching tool targeting primary school students to teach them programming. By letting students write code to control a drone and make it complete several tasks which cover a wide range of contexts, students could learn basic programming concepts and gain experience of interpreting 'wordy' questions. The outreach team of Department of Computing of Imperial College has used it in a primary school and has great feedback from the students. Links: *GitHub*, *YouTube demo*

TEA - Tutorial Educational Aid – JavaScript, Python 2nd year group project, May - Jun 2019
A web application that provides real time interactions between students and helpers. By allowing students to send help requests with their location and displaying the requests queue for the helpers, the application is designed to improve tutorial and lab sessions in universities.

SpeedBoards – Kotlin IC Hack 19 group project, Feb 2019
A bundle of next-generation Android keyboards – Tilt Board and Combo Board, built for Android with Kotlin. The innovation is to reduce the number of key presses during typing. Won the runner-up 'Best Native Mobile App' prize in IC Hack 19. Link: *Project DevPost*

Guitar Amateur – C 1st year group project, May - Jun 2018
A rhythm game written in C, inspired by Guitar Hero series, that users hold the right keys and 'strum' as notes move down along with the music playing. Reversed engineered the Guitar Hero songs files to support the playing experience of all songs from the original game.

Awards

Certificate of Distinction in Euclid Mathematics Competition 2016