#### Tristan Kalloniatis

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## Personal statement

A quantitative researcher with high analytical skills, from a pure mathematics postgraduate background, with a keen interest in machine learning, natural language processing, reinforcement learning, and artificial intelligence research.

# **Experience**

September 2016 – present: Quantitative researcher at G-Research (London).

This involves application of NLP and ML techniques as well as general coding, statistical modelling, and research skills in the pursuit of identifying exploitable statistical patterns in global equity markets over medium horizons. Projects typically last for 5 months and after extensive testing 6 of my models reached production.

## **Publications**

Kalloniatis, Tristan. (2018). On flagged framed deformation problems of local crystalline Galois representations. Journal of Number Theory. 199. 10.1016/j.jnt.2018.11.010.

## Education

Date	Institution	Degree	Result
2011- 16	King's College London	Mathematics (PhD)	Awarded April 2016 for thesis entitled "On Flagged Framed Deformation Problems of Local Crystalline Galois Representations"
2010- 11	Queens' College Cambridge	Mathematics Tripos Part III (MA)	Distinction Specialised in algebraic number theory and the theory of computation
2007- 10	Queens' College Cambridge	Mathematics Tripos (BA)	First class honours; several college prizes for top 10 rankings university wide

Also accredited on numerous machine learning Coursera courses, including the University of Washington Machine Learning specialisation, achieving a 97% grade average. Courses include RL, RNN and CNN architectures, DCGAN, and NLP techniques.

### Skills

My lifelong interest in mathematics and related quantitative fields has fostered both a capacity for quick logical reasoning and the ability to rapidly digest technical information and learn new skills.

**Programming:** Languages include python, C#, octave/MATLAB, Mathematica, and SQL.

**Research and project management:** Both working at G Research and the previous PhD experience have taught me how to work independently, motivate myself, and break large projects into smaller manageable pieces. Additionally I have worked on my own projects, including NLP (embedding algorithms and sentiment classification) and RL (comparing DQN and policy gradient methods on standard control tasks).

**Communication:** Giving a large quantity of seminar talks to a specialised audience on the particulars of my research, paper presentations through the G Research NLP reading group, and the London Number Theory study group series, and teaching for a non-specialised audience (undergraduate supervisions, classes, and private tuition).

**Networking:** Took part in the G-Research talk series on machine learning topics such as WaveNet architectures. Attended several week-long PhD conferences around the world on algebraic number theory, allowing me to interact with fellow graduates and researchers.

**Other:** I speak French, and play keyboard at performance level. In my spare time, I have a strong interest in Rubik's cubes and related puzzles, and am passionate about powerlifting and squash.

#### Referees

Available on request.