

Toby Drane

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SUMMARY

I am a conscientious, ambitious and reliable individual. I hold a first-class honours in BSc Computer Science and a current MSc Data Science and Machine Learning student at UK's top University (UCL).

Skilled in software engineering practices and technologies, scalable architectures and high-performance systems, along with experience in agile working methods.

My research interests are in multi-agent reinforcement learning along with Big Data and scalable architectures.

EDUCATION

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|--|---------------------------------|
| University College London (UCL) MSc Data Science and Machine Learning. Modules Include <ul style="list-style-type: none">– COMP0053 Affective Computing and Human-Robot Interaction.– COMP0078 Supervised Learning– COMP0080 Graphical Models– COMP0081 Applied Machine Learning– COMP0089 Reinforcement Learning (Module run by Google DeepMind)– COMP0090 Introduction to Deep Learning– COMP0124 Multi-agent Artificial Intelligence– STAT0010 Forecasting– STAT0032 Introduction to Statistical Data Science | London, WC1E 6BT 2020–2021 |
| Keele University BSc Computer Science, 1st Class Honours <ul style="list-style-type: none">– Thesis: “Measuring and Comparison of Monolithic and Microservice Elasticity and Scalability on Cloud Networks”, achieved 78%.– Average 92% across 4 programming modules over the three years. | Keele, ST5 5BG 2017–2020 |
| Long Road Sixth Form A Levels <ul style="list-style-type: none">– Maths, Physics, Computer Science | Cambridge, CB2 8PX 2015–2017 |

EXPERIENCE

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|--|---|
| Techspert.io Fullstack Engineer Intern | 52 Burleigh Street, England, CB1 1DJ July - September 2020 |
| <ul style="list-style-type: none">– Engineer for their internal connect application. Backend development with Python and Typescript serverless lambdas. AngularJS web facing application. Successfully implemented several new features across the entire platform stack. Started first company experiments into the use of web sockets for real-time communication, completed with a working notification system. | |

Cambridge Intelligence

React Javascript Developer Intern

6-8 Hills Road, Cambridge, CB2 1JP

July - September 2019

- Worked on the company's 'ReGraph' product a React toolkit for data visualization. In a small team of 5 senior developers including the company's founder and CEO
[<https://cambridge-intelligence.com/toby-internship-2019/>].
- Advanced React programming including React hooks, and Redux state management.
- Building and testing applications using modern frameworks including Rollup, Webpack and Jest.
- Internal infrastructure DevOps using Docker containerisation and GitLab Kubernetes.
- <https://cambridge-intelligence.com/toby-internship-2019/>

Keele University / ExesiosBDD

Machine Learning Researcher

Stoke-on-Trent, ST4 8GB

January - June 2019

- Worked in partnership with Keele University and Exesios BDD on a research and innovation project 'KRISP.'
- Researched and built (using Javascript) an automated machine learning tool (using natural language processing) to help with the creation of a place branding software. Met with Exesios and the University weekly to ensure timely updates and the vision of the project was being delivered. Initial prototype released to early adopters for feedback in June 2019.

Cambridge Intelligence

Javascript Developer Intern

6-8 Hills Road, Cambridge, CB2 1JP

July - September 2018

- Worked on 'KeyLines' a world leading Javascript SDK for data visualization and analysis. Coding of new product features and bug fixes. NodeJS development including database connections hosted via AWS. Worked within a team of 12 developers, with an agile working methodology.
[<https://cambridge-intelligence.com/internship-toby/>].
- Writing and testing code using Mocha and Chai, test driven development running on CircleCI with in an internal company orchestration system.

SCHOLARSHIPS AND AWARDS

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|--|------|
| • Bishop Laneys Charity, grant of £500 for Postgraduate studies. | 2020 |
| • The Ann D Foundation, £5000 grant for Postgraduate tuition fees. | 2020 |

SKILLS

- **Continuous Integration/Deployment lifecycle:** CircleCI, Travis and GitHub Actions.
- **Testing Frameworks:** Jest, Mocha, Chai.
- **Version Control:** Git, GitHub, GitLab.
- **Proficiency in Programming:** Javascript, Typescript, Python, Java.
- **Other Languages:** R, Julia, MatLAB, PHP
- **Serverless Computing:** AWS Lambdas, Google Cloud Functions
- **Cloud Computing:** AWS, Google Cloud
- **Sate Management & DBs:** Redux, Flux, React Hooks. PostgreSQL, MongoDB, NoSQL (AWS DynamoDB)
- **Slack, Trello, Jira**

LANGUAGES

- **English:** Native Language

EXTRACURRICULAR ACTIVITIES

- Member of the Cambridge NodeJS/Javascript Network Current
Attend monthly meetings, with some great speakers from industry about emerging trends and topics around Javascript.
- UCL Data Science Society 2020–Current
Events include talks, hacker days and regular society socials.
- UCL Entrepreneurs Society 2020–Current
Meet like minded students who have interests with starting a company. Events with startup schools, founders & CEOs and investor groups.
- University of Keele American Football 2017–2019
Elected social secretary for the 2018 season. Organise several training sessions a week with external coaches, and weekly matches against other University teams.