

# Bilal Chaudhry

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Passionate MEng Computer Science Graduate who has been awarded the 'Outstanding Computer Science Achievement Award' by Durham University. Worked as a Web Administrator, Technical Advisor and a Senior Lab Demonstrator teaching full-stack development, functional and OO programming, and computer algorithms. Recently completed a contract as an AI/Data Science Research Associate and currently working as a Django Backend Developer. Actively looking for opportunities to build an impressive career in IT. Looking forward to becoming a crucial asset for an organization rather than just an employee.

## Skills

- Django Backend Development
- Microservices Development
- Research and Development
- Machine Learning
- Agile Project Management
- Natural Language Processing
- Computer Vision
- Software Version Control
- Data Science

## Employment History and Work Experience

**Django Backend Developer – HADS**  2020-Current

- Backend developer for an innovative new startup intending to launch our first product by July 2020.
- Working with technologies like Django, Celery, Redis, Kafka, Docker, AWS SES, EC2, RDS and SQS.
- Actively involved in R&D and developing microservices-based systems.
- Responsible for API middleware integration to support applications on Web, IOS and Android.

**.Net Research and Development Intern – Ministry of Health (KSA) SFH**  2020-2020

- Designed and developed a chatbot system for ease of communication between patients and hospital departments. The software was shown to upper management for consideration of using it in production after Alpha and Beta testing.

**Machine Learning/Data Science Research Associate – EPSRC (UK)**  2019-2019

- Chosen by UK's **Engineering and Physical Sciences Research Council (EPSRC)** to work with Durham University's Government and International Affairs department to implement an efficient deep learning solution to the problem of finding interesting information in large remote databases of historical newspapers, articles and works (digitized using Optical Character Recognition) to aid carrying out further research.
- Successfully designed, developed and shipped software on client servers.
- Worked towards making the software public (as an R and Python repository) and writing a research paper to contribute to the research area. The software is currently being used to carry out further research by Durham University's School of Government and International Affairs.

### **Web Administrator and Digital Editor – Palatinate Durham**

2018-2019

- Full stack developer for Durham University's award-winning newspaper platform.
- Successfully managed the technology department and supported the needs of research and publication departments.
- Reduced the average webpage loading speeds by introducing load-balancing and multi-tier caching to optimize the servers and load times to support 200,000+ monthly user traffic.

### **Senior Lab Demonstrator – Durham University**

2018-2019

- Successfully taught the labs for Computer Systems and Programming modules to 62 first year computer science students in a team of 6 demonstrators [Lead a group of 3 demonstrators].
- Contributed to achieving higher student satisfaction by aiding in reshaping module structure and providing constructive feedback to students and professors.

### **Tutor – Code First Girls**

2018-2019

- Taught front-end programming (HTML, CSS, JavaScript, GitHub and Bootstrap) to 30 women from non-STEM backgrounds.
- Cultivated a passion for problem-solving and programming in young women.

### **Lab Demonstrator – Durham University**

2017-2018

- Successfully taught the labs for Introduction to Programming (Java) and Computer Algorithms modules to 60 first year Durham University students.
- Managed labs, marked weekly assignments and invigilated tests.
- Achieved 100% student satisfaction and provided constructive feedback to students and professors.

## **Education**

### **Integrated Master of Engineering: Computer Science – Durham University**

2015-2019

- Achieved: - First Class Honors
- Outstanding Computer Science Achievement Award

## **Academic Focus**

**Computer science Master of Engineering research dissertation** involved researching different methods to incorporate depth information in Faster RCNN to improve 2D object detection.

- Research targeted for improving the performance of autonomous vehicles.
- Currently writing a research paper to publish findings as advised by supervisors who are impressed with the findings.

**Third-year research dissertation** involved researching Elliptic Curve Cryptography (ECC) as an alternative to RSA cryptosystem in providing web security.

- Successfully designed and implemented a powerful and secure ECC system (in Python) protected from side channel attacks

## Programming Language Competency

**Most Experienced with:** Python and Java.

**Moderate Experience with:** C# and JavaScript.

**Dabbled in:** R.

**Others I have worked with:** Pascal, Haskell and Ruby.

## Extra-Curricular Activities

**Member of the Durham University  
Undergraduate Robotics Club**  
2017- 2019

- Worked with other members to program NAO robots to be able to compete against Cambridge and Oxford universities in robot football tournaments to be held in the early 2020s.