

# Constantinos Eleftheriou

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## PROFILE

Aiming for a research career in the field of computational neuroscience, I hope to converge my degree knowledge in molecular and systems neuroscience with my expertise in computing to research and develop computational models for the functions of the nervous system.

I'm also interested in how IT infrastructure can be best utilised for research purposes, including large scale data processing and diagnostics.

## EDUCATION

### The University of Edinburgh, Edinburgh, Scotland, UK

- PhD Neuroscience (Offer secured) Commencing Oct 2018
  - Topic: Sensorimotor dysfunction in mouse models of autism and intellectual disability
  - Supervisors: Prof. Ian Duguid, Prof. Peter Kind
  - Funding: Simon's Initiative for the Developing Brain, Principal's Career Development Scholarship
- BSc Neuroscience (Hons), First Class (1:1) Sep 2015 – May 2018
  - Dissertation: A Model-Driven Approach to Understanding Language Processing (1:1)
  - Supervisor: Dr. Cyril Pernet, CCBS
  - Focus: Neural Circuits, Neuroimaging, Cognitive Modelling, Statistics

### The International School of Paphos, Paphos, Cyprus

Sep 2007 – Jun 2014

- A Level Studies:  
Computing (A\*), Biology (A), Chemistry (A), Greek (A), Maths (B), Physics (B at AS)
- Apolyterion (School Leaving Certificate): 100/100
- IGCSEs: 6A\*s, 2As

## RESEARCH EXPERIENCE

### Duguid Lab, Center for Discovery Brain Sciences, The University of Edinburgh, Scotland, UK

- Research Intern Jun 2018 – Present
  - Project: Sensorimotor dysfunction in mouse models of autism and intellectual disability
  - Supervisor: Prof. Ian Duguid

### Brain Imaging Research Center, Center for Clinical Brain Sciences, The University of Edinburgh, Scotland, UK

- Research Intern (Unpaid) May 2017 – Present
  - Project: Understanding Language Processing Defects in Receptive Aphasia  
I have been working together with Dr. Cyril Pernet on a project aimed at uncovering the neural mechanisms of decision making during language processing. Using a hierarchical diffusion decision model, we are analysing behavioural & fMRI data collected from aphasic stroke patients performing a language pair matching task in order to extract the cognitive components of decision making during language processing and determine which of these components are impaired, and to what degree, in aphasia. A model-lead analysis of pilot fMRI data formed the basis of my undergraduate honours dissertation.  
The repository for the data analysis is publicly accessible at <https://github.com/CPernet/LanguageDecision>
  - Supervisor: Dr. Cyril Pernet

### Cyprus Institute for Neurology & Genetics, Nicosia, Cyprus

- Student Intern Dec 2014 – May 2015
  - Project: The Role of Connexins in Charcot-Marie-Tooth Disease  
During my gap year I worked as an intern at the Neuroscience laboratory (Neurology Clinic E) under Dr. Kleopa. My duties included assisting the research scientists in their practical work. I was exposed to a number of standard laboratory procedures including gel electrophoresis, PCR, Western blotting, operation of the cryostat, fluorescent microscopy, immunohistochemistry, as well as various experiments using mice as disease models. The main projects I shadowed included studies on demyelinating leukodystrophy and X-linked Charcot-Marie-Tooth Disease.
  - Supervisor: Dr. Kleopas Kleopa
- Student Placement Summer 2012 & Summer 2013
  - During the summers of 2012 and 2013, I was accepted by the CING for 4-week placements at the Neuroscience laboratory, under Neurology Clinic E (under Dr Kleopas Kleopa), shadowing scientists running projects on nervous system disorders. I had the opportunity to observe how a plethora of laboratory procedures and protocols are carried out and gain hands-on experience in what being a research scientist entails. These placements reinforced my decision to pursue a career as a research scientist.
  - Supervisor: Dr. Kleopas Kleopa

## COMPUTING EXPERIENCE

### **Enterprise Unix Platforms**, ITI, Information Services, The University of Edinburgh, Scotland, UK

- **Unix Systems Administrator** Mar 2016 – Jun 2018
  - My role as a systems administrator required me to work in a team responsible for the operation, development, maintenance and facility management of services and systems which use the Unix/Linux operating systems, together with the central provision of compute and data storage services for both the University functions and its research base.In addition to providing second-line support to many of the University's schools & departments, I have worked on a variety of projects, which mainly focused on infrastructure automation and service delivery on a VMware-based virtual estate. I've worked extensively with technologies such as Puppet, OpenStack and Terraform to push the University's digital capabilities forward, in addition to a variety of traditional scripting languages including Bash, Python and Perl. I have architected & developed a user request & billing platform for our virtual hosting service, as well as a self-service portal & administrative toolkit for our OpenStack estate.  
This work was done on a part time basis alongside my studies, with full-time employment during the summer break.

### **Paphos General Hospital**, Paphos, Cyprus

- **Developer** Oct 2013 – May 2014
  - I've worked with the Respiratory Department of the Paphos General Hospital to develop a patient management application to replace their paper-based appointment system. The full source code for this application, as well as an attempt to port it from C# to Python, can be found on my github page at <https://github.com/celefthe>.

## TEACHING EXPERIENCE

### **Unix Shell Programming**, Digital Skills & Training, Information Services, The University of Edinburgh, Scotland, UK

- **Demonstrator** Sep 2017 – Jun 2018
  - Participated in the delivery of Unix 1, 2 & 3 organised by the Information Services Digital Skills Training team at the University of Edinburgh as a demonstrator. This course is a practical introduction to advanced shell scripting in the Unix environment, and is directed at university staff and postgraduate students.

## AWARDS & SCHOLARSHIPS

- **Principal's Career Development Scholarship**, The University of Edinburgh Oct 2018 – Mar 2022  
Studentship to fund PhD studies in the University; see <https://www.ed.ac.uk/student-funding/postgraduate/uk-eu/university-scholarships/development>.
- **PhD Studentship, Simon's Initiative for the Developing Brain** Oct 2018 – Mar 2022  
Studentship to fund PhD studies in Autism; see <http://www.sidb.org.uk>.
- **SEOTY Award for Commercial Impact**, Careers Service, The University of Edinburgh May 2018  
In recognition of work in a part-time position whilst studying.
- **The Edinburgh Award (Work Experience)**, The University of Edinburgh Apr 2017  
This award is given to students whom the University has recognised for actively working to maximise their impact and excel through undertaking part-time work during their studies. See <https://www.ed.ac.uk/edinburgh-award/about>.
- **Bank of Cyprus Student Excellence Award** Jul 2014  
For receiving the highest Apolyterion mark in my institution
- **Outstanding Learner Award for Top Mark in Cyprus in AS Computing** Oct 2014  
Awarded annually by Cambridge International Examinations
- **The International Award for Young People** 2009 – 2012  
International equivalent of the UK's Duke of Edinburgh Award. Bronze & Silver levels.
- **Fulbright Bicommunal Leadership Program**, Fulbright Commission, USA Jul 2011  
I was chosen to participate in a Bicommunal leadership camp organised and funded by the Fulbright commission in collaboration with the US Agency for International Development. The program took place at the School of International Training, in Vermont, USA, which hosted a number of similar international programs. By being exposed to a number of different cultures and ideas, I was able to develop a unique global perspective.

## PROFESSIONAL AFFILIATIONS & ACTIVITIES

### **British Neuroscience Association**,

Dorothy Hodgkin Building, Bristol, UK

- **Member** 2016 – Present

### **The Physiological Society**,

Hodgkin Huxley House, London, UK

- **Member** 2016 – Present

### **Cyprus FOSS Society**,

Nicosia, Cyprus

- **Founding Member** 2014 – 2016

## SKILLS

Python, C, C#, Bash, Linux/Unix, MATLAB, R, Scheme, Common Lisp, VMWare, Puppet, Terraform, OpenStack, L<sup>A</sup>T<sub>E</sub>X, MySQL/MariaDB, SQLite3, Postgres

## REFERENCES

- **Dr. Cyril Pernet**  
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The University of Edinburgh  
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- **Martin Campbell**  
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*[CV compiled on 2018-06-10]*