Razvan Valentin Marinescu

Education

2014 - 2018 | **4-Year CDT PhD in Medical Imaging, University College London**
MRes project: "Differential Diagnosis of Alzheimer Subtypes Through Disease Progression Modelling"
Modelling progression of a type of dementia called Posterior Cortical Atrophy using an event-based model, where each event represents an underlying biomarker becoming abnormal. The fact that the EBM can provide patient-specific diagnostics, staging and predictions makes it widely applicable in clinical practice.

2010 - 2014 | **4-Year MEng in Computing, Imperial College London**
First Class Honours
Master thesis: "On a new metric to compare internal structures in biological networks"
Supervisor: Dr. Natasa Przulj
Analysing biological networks (metabolic, protein-protein interaction) and researching a novel metric to compare nodes and sub-structures.

Hopfield Neural Networks: Successfully finished a research project describing experiments with recurrent neural networks, the Hopfield Model. My project was cited and acknowledged by Prof. Abbas Edalat at the **IJCNN 2013** conference in Dallas. Also presented the project in front of faculty members in Imperial College.

Emotional State Recognition: Explored, organised and presented novel research material that was focusing on algorithmically recognising the *affective state* of human subjects. I received a prize from Deutsche Bank for the best project in our research area.

Subjects studied include: Bioinformatics, Computational Neuroscience, Machine Learning and Neural Computation, Statistics, Programming, Simulations & Modelling, Complex Systems, Operating Systems, Robotics, Mathematical Methods.

Work Experience

Oct 2012 - Dec 2013 | **Teaching Assistant at Imperial College London**
Teaching Haskell, Java and C programming languages to university undergraduates.

Weekly marking of the student's coursework.

Conducted problem solving sessions, along with lecturing of important concepts.

Mar - Sep 2013 | **Industrial Placement at J.P. Morgan Chase & Co, Emerging Markets**
Assisted the retirement of a legacy system that was processing end-of-day market risk.

Learned to use company systems and program in the Python programming language.

Enhanced my transferable skills by leading team meetings and doing proof of concept demonstrations.

Jul - Sep 2012 | **Summer Internship at Goldman Sachs, Equities Technology**
Helping improve the Java source-code of a trading system through automatic re-factoring.

Learned a lot about various financial instruments, market data and how they are processed by computer systems.

Collaborated with the global team, analysed current issues about the software in use.

Jun - July 2011 | **Undergraduate Research Assistant at Imperial College London**
Developed Medical Software for that helps medics perform Endoscopy safer.

The algorithms use advanced statistical methods to analyse patient data and predict how easy an Endoscopy intervention would be performed on a new patient.

Awards

2013	DAAD Scholarship for doing a German Language course in Aachen, Germany over the summer.
2011	Prize for the best project (Recognising Affective State) in the Artificial Intelligence section, Imperial College London
2010	Sponsored visit to Brussels, at the **NATO Headquarters**, for the achievements in international projects and Olympiads.
2009	Grand Prize at the International Space Settlement Design Competition offered by **NASA Johnsons Space Center**.
2008	Diploma of Excellency awarded by the **Government** for impressive problem-solving skills.
2007	Bronze Medal ar the 6-th International Computer Project Competition "Informatix".
	Silver Medal at the National Mathematics Olympiad.

Skills and competences

Programming: C/C++, Java, x86 Assembly, Python, Perl, SQL, Haskell, Prolog, LaTeX

Computer Systems: Ubuntu, Windows, Version control systems(Git)

Languages: Romanian (native), German (fluent), French (basic), Spanish (basic)

Interests and Activities

- As a **Year Representative** in the Department of Computing, I developed leadership and speaking skills by putting forward the academic concerns of students in council meetings.
- **Treasurer** in the Romanian Society, managing the finances and organising various events such as bar and cinema nights, football games and food nights.
- **First Aider** in St John's Ambulance, offering first aid on various events such as the London Summer Ball, Wimbledon Championships and Arsenal games.
- Swimming, playing guitar and ice skating with friends in my free time.
- Wikipedia Editing: Wrote in several scientific articles, such as Gesture Recognition, Affective Computing and Hopfield Network.