Dobromir Marinov

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Personal Profile

I am a software engineer specialising in the development and optimisation of distributed systems and their application for real-time data streaming and machine learning. My research interests include, but are not limited to, multi-agent reinforcement learning, federated learning and machine vision. The programming languages that I use daily are Rust and Python.

Employment

Tenovos   *Cambridge, United Kingdom*
Senior Software Engineer   *February 2025 – Present*

- Developing a SaaS platform for visualisation, categorisation and discovery of large quantities of digital content.
- Building adaptive machine learning algorithms for dynamic content categorisation.
- Rust, Python, TypeScript.

Nstream (formerly Swim)   *Cambridge, United Kingdom*
Software Engineer   *September 2019 – February 2025*

- Developing a distributed software platform for edge computing and real-time applications.
- Building commercial products based on the core system.
- Rust, Java, Python, TypeScript.

MSX International   *Colchester, United Kingdom*
Software Engineer (Machine Learning)   *June 2018 – September 2019*

- Development of machine learning models for predictive analytics in the automotive industry.
- Building and deployment of microservices using cloud platforms.
- Python, R, AWS , Docker, Redshift, LaTeX.

MSX International   *Colchester, United Kingdom*
Software Engineer   *November 2016 – June 2018*

- Developing web applications for the automotive industry.
- Java, Oracle, Freemarker, Liferay, Hibernate, Gradle, Selenium.

StangaOne1

Web Development Intern

- Developing commercial websites for business clients.
- PHP, MySQL, HTML5, CSS3, JavaScript, Laravel, jQuery.

Education

University of Cambridge *Cambridge, United Kingdom*
MPhil Advanced Computer Science *October 2023 – July 2024*

Grade:
Distinction

Thesis:
Anomaly detection on temporal graphs for suppression of adversarial communication in multi-agent reinforcement learning.

Relevant Modules:
- Federated Learning.
- Geometric Deep Learning.
- Machine Visual Perception.
- Multicore Semantics and Programming.
- Advanced Graphics and Image Processing.

University of Essex *Colchester, United Kingdom*
BSc Digital and Technology Solutions (Software Engineer) *October 2016 – September 2019*

Grade:
First-class honours degree with an award for highest degree mark in the computer science and electronic engineering department.

University-based Capstone Project:
Developing algorithm for automatic hyperparameter optimisation and neural architecture search.

Work-based Capstone Project:
Creating a machine learning system for prioritisation of customer calls in a call centre.

Relevant Modules:
- Software engineering.
- Data structures and algorithms.
- Evolutionary computation and genetic programming.
- Advanced programming.

Big Data and Analytics Summer School *Colchester, United Kingdom*
Delegate *July 2018 – August 2018*

- Learning under different training and testing distributions.
- Visual recognition and tracking in large image and video datasets.
- Introduction to the modelling and analysis of complex systems.
- Artificial intelligence and neural networks in analytics.

High School of Mathematics *Plovdiv, Bulgaria*
Secondary education *September 2011 – June 2016*

- Program with extensive study of mathematics, english and IT.
- Graduated with excellence: 5.93 out of 6.

Awards

Johnston Prize for Postgraduate Studies *Cambridge, United Kingdom*
University of Cambridge *July 2024*

- Awarded for achieving Distinction in the Masters course.

Computer Science and Electronic Engineering Prize *Colchester, United Kingdom*
University of Essex *July 2019*

- Awarded to the final year student who achieves the highest degree mark.

The Degree Apprenticeship Prize *Colchester, United Kingdom*
University of Essex *September 2018*

- Awarded to the second-year apprenticeship degree student with the best overall mark.

K.F. Bowden Memorial Prize *Colchester, United Kingdom*
University of Essex *September 2017*

- Awarded to the top 4 first-year students, in CSEE, with the best overall mark.

Award of Excellence *Plovdiv, Bulgaria*
High School of Mathematics *June 2016*

- Awarded for overall performance above 5.80 out of 6.

Certificates

Tech Industry Gold Certificate of Recognition *London, United Kingdom*
Tech Partnership Degrees *June 2019*

- Nominated by the University of Essex for outstanding academic achievements and awarded by the Tech Partnership Degrees.

General Data Protection Regulation (GDPR) *Colchester, United Kingdom*
MSX International *April 2019*

- Certificate for completing a mandatory course in GDPR.

Information Security *Colchester, United Kingdom*
MSX International *April 2019*

- Certificate for completing a mandatory course in information security.

StangaOne1 Academy   *Plovdiv, Bulgaria*

StangaOne1   *January 2016 – May 2016*

- Certificate for successfully completing a web development course.
- PHP 5, MySQL, Git, JavaScript, jQuery, AJAX, HTML 5, CSS 3.

Publications

D. Marinov and D. Karapetyan, "Hyperparameter Optimisation with Early Termination of Poor Performers," Computer Science and Electronic Engineering Conference 2019, September 2019.