Almas Baimagambetov

Statement

I am a Principal Lecturer and *Computing and Maths* Subject Co-Lead at the University of Brighton, where I teach on software and game development courses. My PhD is in computer science and I remain an active researcher. I am the author of FXGL, a game engine used by academic institutions to teach game development. I lead and contribute to numerous projects on GitHub and run an educational YouTube channel for software and games.

Work Experience

Feb 2022- Present	Principal Lecturer in Computing, *University of Brighton, UK*
Feb 2020- Jan 2022	Senior Lecturer in Computing, *University of Brighton, UK*
Oct 2015- Jan 2020	Lecturer in Computing, *University of Brighton, UK*
Oct 2012- Feb 2015	Guest Speaker and Mentor (Volunteer), *Bellerbys College, UK*
July 2007- Oct 2015	Software Developer (Freelance)

Education

Feb 2019- Oct 2020	**PGCert in L&T HE**, *University of Brighton, UK*
July 2015- Dec 2019	**PhD in Computer Science**, *University of Brighton, UK* Thesis: automated visualization of grouped networks using Euler diagrams and graphs keywords: set theory, graph theory, topology, computational geometry & graphics
Oct 2012- July 2015	**BSc Computer Science (Games)**, *University of Brighton, UK* Analysis of software development issues in large scale games Project grade: **A+** Degree: **1st Class Honours**

Projects

Explore GitHub for examples of projects using a range of programming languages.

The FXGLGames project is a collection of games developed using the FXGL framework in Java and Kotlin. The repository features a range of classic video games, including Space Invaders, Pac-man, Breakout and many more. All these games are open-source and suitable for both beginners and more experienced developers.

The FXTutorials project contains most of the JavaFX source code featured on the YouTube channel above. Having access to the source code of a video tutorial is beneficial for those who prefer to skim through the content, rather than follow alongside the tutorial.

Zephyria is an RPG game written in Kotlin that uses the FXGL framework. This game is a sophisticated example that showcases many of FXGL's features, combined with heavy use of Kotlin DSL.

I also help co-maintain community-oriented (and community-driven) JavaFX projects, such as Scene Builder, FXyz, AwesomeJavaFX, and FXDocs.

Awards

Jan 2022	Robotics AI Lab Research Bid (£158 000), UoB
Dec 2021	Belong at Brighton Events Support (£375), UoB
Oct 2019	CLT Scholarship (£1 000), Centre of Learning & Teaching, UoB
June 2018	Best Student Paper, Diagrams 2018 Conference
Sept 2015	International Research Scholarship (50% fee reduction), UoB
July 2015	Best Final Year Development Project (£250), The FDM Group
Nov 2014	Academic Merit Based Scholarship (£1 000), UoB
Nov 2013	Academic Merit Based Scholarship (£1 000), UoB

Research and Professional Talks (prev. 4 years)

February 2022	AI Pathfinding in FXGL (FOSDEM 2022 international software development conference)
July 2021	FXGL: Cross-platform JavaFX Game Engine (JetBrains International Live)
April 2021	High-performance Game Engine for Java and Kotlin (New York Java Group)
March 2021	FXGL Game Engine (Silicon Valley JavaFX Group)
February 2021	A Practical Introduction to FXGL (FOSDEM 2021 international software development conference)
January 2021	A Practical Introduction to FXGL (Brighton Java Meetup)
November 2020	Modern JavaFX Game Development with FXGL (JFX-Days international conference)
August 2020	Evaluating Visualizations of Sets and Networks (11th International Conference on the Theory and Application of Diagrams)
July 2020	Impact of Gamified Work-based Learning on Student Experience (Education and Student Experience Conference)
June 2019	Automated Visualization of Grouped Networks Using Euler Diagrams and Graphs (CEM Conference)
April 2019	Java and JavaFX Game Development (Brighton Java Meetup)
June 2018	Generating Effective Euler Diagrams (10th International Conference on the Theory and Application of Diagrams)

Publications

1. **Baimagambetov, A.** (2022) Learn JavaFX Game and App Development with FXGL 17. (Book)

2. **Baimagambetov, A.**, Stapleton, G., Blake, A. and Howse, J. (2020) Evaluating Visualizations of Sets and Networks that Use Euler Diagrams and Graphs In: 11th International Conference on the Theory and Application of Diagrams, Tallinn, 24-28 August 2020.

3. **Baimagambetov, A.**, Howse, J., Stapleton, G. and Delaney, A. (2018) Generating Effective Euler Diagrams In: 10th International Conference on the Theory and Application of Diagrams, Edinburgh, 18-22 June 2018.

4. **Baimagambetov, A.** (2018) Automated Visualization of Grouped Networks In: 10th International Conference on the Theory and Application of Diagrams, Edinburgh, 18-22 June 2018. (Graduate Symposium report).