Andrey Stoev

SOFTWARE ENGINEER,
MATHEMATICIAN, STATISTICIAN

CONTACT INFO

Sofia, BG
+359 887 460800
stoev.andy@gmail.com
linkedin.com/in/andy489
github.com/andy489
andy-tn7s.onrender.com

ABOUT ME

Bachelor's degree in software engineering @ FMI, Sofia University. Determined and focused team player who is able to communicate effectively with both technical and non-technical stakeholders and easily finds a common language with all kinds of characters. Hardworking, self-motivated and responsible. Aiming to achieve the maximum result in my work. PASSIONATE for designing, implementing and automating not only software products, but everything. Continuously searching for excellence. I can describe myself as a person with highly developed combinatorial thinking, who is eager to do, learn and be more. EASY TO WORK WITH, with a can-do attitude.

EDUCATION

- Faculty of Mathematics and Informatics (FMI), Sofia University. Specialty: Software Engineering.
  Period: September 2018 – July 2022.

- UNWE, 2007 – 2012, Master Degree; Specialty: Business Administration and Human Resources

- Mathematics High School, "Ivan Tsenov" – Vratsa; Speciality: Mathematics, Informatics, English and Physics

UNIVERSITY COURSES

- Programming:
  - Modern Java Technologies
  - Operating Systems
  - Data Structures and Algorithms
  - Design and Analysis of Algorithms
  - Object Oriented Programming
  - Intelligent Systems (Data Mining)
  - Databases
  - Web Technologies
  - Web Application Development with Java
  - Programming with Swift
  - Languages and learning environments

- Math:
  - Differential and Integral Calculus
  - Statistics and Empirical Methods
  - Differential Equations and their Applications
  - Complex Analysis
  - Operations Research
  - Linear Algebra

- Software Engineering:
  - Distributed Software Systems
  - XML Technologies for Semantic Web
  - Analysis of Software Requirements
  - Computer Networks
  - Quality Assurance
  - Design and Integration of Software Systems
  - Human Machine Interface Design

- Computer Science:
  - Discrete structures
  - Complexity and Computability

- Advanced:
  - Finite Automata Applications
  - Fast Algorithms in Data Structures
  - Advanced Combinatorics and Graph Theory
  - Advanced Number Theory

... and more

TECHNOLOGIES AND SKILLS

- Java SE 11+
- Spring Framework:
  - Spring Boot, Spring Core
  - Spring Data, Spring MVC
  - Spring Security, Spring Cloudinary
  - Actuator, Micrometer
  - JPA: Specification, Pagination and Sorting
  - Hibernate ORM
  - Thymeleaf
  - DB migrations with Flyway and Liquibase
- Automation build tools: Maven, Gradle
- Python 3
  - Flask, FlaskWTForms, jinja
  - SQLite, SQLAlchemy ORM
  - pandas, jupyter notebook, NumPy
  - matplotlib, plotly, seaborn, sklearn (scikit-learn)
  - tkinter
- Dropwizard Framework
- Apache Kafka, Redis (as a cache)
- RDBMS:
  - MySQL + MySQL Work Bench
  - PostgreSQL + psql terminal
  - MSSQL Server + SSMS
- Mathematical, Combinatorial and Statistical calculation
- Design Patterns and Algorithms
- SOAP/REST, Microservices
- C, C++, proficiency in Bash scripting, Z shell
- XML, HTML, CSS, LaTeX
- Bootstrap
- JavaScript, jQuery, PHP
- Unix-like Operating Systems, Linux
- R Programming Language for Statistical Computing, Matlab
- Version Control and Source Code Management:
  - Git Bash, TortoiseGit, BitBucket
- CI/CD: Bamboo
- Knowledge of agile software development methodologies, such as Scrum and Kanban
- Experience with Jira and ClickUp

QA AND TESTING

- Unit, Integration and End-to-End tests
- JUnit 5, Mockito
- Selenium

OTHER COURSES (non-university courses)

- Spring Fundamentals
- Spring Advanced
- Java Fundamentals
- Getting Started with Dropwizard
- Liquibase Fundamentals
- Aspect Oriented Programming
- The Complete Python Pro Bootcamp (Udemy)

SOME UNIVERSITY PROJECTS (WITH LINKS)

- Battleships Online Console Game – Java SE 17, Mockito 5.7;
- FMI parking System – Web Technologies, PHP, JS, CSS, SQL;
- Image Editor – Operating Systems, Bash Script;
- Airport Connections – Data Structures and Algorithms, CPP;
- Suffix Automaton – Fast Algorithms in Data Structures, CPP, Myhill–Nerode;
- Scalability of the Mandelbrot Test – Distributed Software Systems, Multithreading.

SOME OTHER PROJECTS

- Configurable Reel Set Generator – Gaming, Shuffling with Restrictions;
- Configurable Galton Machine Simulator – Gaming, Math, Statistics;
- 10 Simple Spring Projects - Spring-MVC, Spring-Data-JPA, Session Scope Beans, Cookies, DB Authentication, DB migrations, Validation and Thymeleaf Server-Side Rendering, DB migrations with FlyWay and Liquibase;
- DropBookmarks Project - A Dropwizard 4.0.0 project exposing REST API to store bookmarks;
- MultipleDatasources - Configuring Spring to work with multiple data sources (MySQL and PostgreSQL) and test it with H2 in-memory DB;
- Simple Guess Card Game – A simple card game for SoftUni project course, Java 17, Spring Boot 3, Thymeleaf, MySQL
- MyMobile (under construction) – Spring-Data-JPA, Spring-MVC, Spring-Web, Spring-Validation, Spring-Security6, Thymeleaf, MapStruct, DB migrations with FlyWay, MailHog email testing tool for developers, GreenMail test suite of email servers, Internationalization (I18n), Unit and Integration Tests, End-to-End test with Selenium, Spring Boot Actuator, **Micrometer**, Prometheus, Grafana, and more... (still working on it)
- Pathfinder (under construction) – Spring-Data-JPA, Spring-MVC, Spring-Web, Spring-validation, Spring-Security6, Thymeleaf, MapStruct, DB Migrations with **Liquibase**, and more...
- Blackjack (under construction) – Blackjack project, Gradle, Spring-Data-JPA, Spring-MVC, Spring-Web, Spring-validation, Spring-Security6, Thymeleaf, DB Migrations with Liquibase, Mail Hog, Re-captcha, Validation, and more... (still working on it)

- **PROJECTS FOR COMPANIES I HAVE WORKED FOR**

  - Bonus Buy (Cayetano Gaming) – functionality that allows the purchase of a bonus. The functionality guarantees stochasticity with each spin that rewards the purchased bonus. It allows filtering of the spins that carry a purchased bonus, based on lower, upper and interval payouts, which allows configuration of the mean value of the purchase. The implementation is based on a highly configured manifest file that allows even the purchase of bonuses that are awarded based on some progress incremented from events in previous spins.
  - Ante Bet (Cayetano Gaming) – functionality that allows the player to make spins with higher chances for receaving perticular bonus or bonuses (or other paying events) and is willing to pay a higher bet for them.

  Both functionalities were accompanied by simulation modules to ensure their accuracy and detailed documentation to allow their easy use.

EXPERIENCE (in iGaming)

RED TIGER PART OF Evolution Engineering : **Game-Math Designer.**

From 2022-03 · To 2023-02

- Balance the game probabilities and mechanics to create engaging and satisfying gameplay;
- Ensure the expected quality of the games;
- Research practical solutions to problems encountered in the creation of new games;
- Scripting and automating tools and providing solutions to complex problems;
- Analyse statistical data and provide it theoretically and empirically;
- Providing ways to implement complex game flow;
- Collaborate with the team lead and other software developers to plan, design, develop, test, and maintain solutions based on customizable Slot Framework and its infrastructure;
- Observe and foster code quality standards and agile software development methodologies.

cayetano GAMING PART OF Flutter International : **Java-Quant Developer.**

From 2023-04 · Present

- Develop the Java server;
- Find and resolve game logic issues;
- Provide solutions to problems of new game creation and development;
- Refines games by test playing and making changes based on gameplay;
- Supports the game development in all phases;
- Works on the platform integrations when needed;
- Create analytical and simulated game math models to determine game return to player (RTP) and capture vital statistics about the game's volatility profile;
- Collaborate with other teams through the creation of the game, to ensure that all elements of the design are in harmony;
- Develop and release the game math to development and staging servers, respectively;
- Provide detailed game statistics documents for development and release;
- Develop and maintain communication layers to platform and client;
- Tune the game values together with the Game Designer;
- Validate and simulate models to ensure they work as planned;
- Maintain a forced sequence module and provide guidelines for creating game predefined outcomes.

ADDITIONAL

- Many articles and problems in mathematics and informatics journals in Bulgaria like "МАТЕМАТИКА+" (M+321, M+335, M+351, M+359, 1/2013 Article "Around Paul Finsler and Hugo Hadwiger Inequality" and more - link: [on demand]) and problem solutions in a world-wide popular science magazine in physics and mathematics "Квант" (Russian: "Квант "for "Quantum") magazine.

LANGUAGES

Bulgiarian, English