

Ryan Shokrpour

Software Engineer

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 Ryan-Shok

EDUCATION

New York University - Computer Science & Math Joint Major | Web Programming & History Minor

GPA: 3.833 - Graduation: May 2027 - Relevant Coursework:

Data Structures, Computer Systems Organization, Operating Systems, Basic Algorithms, Algorithmic Problem Solving, Calculus I-III, Discrete Mathematics, Linear Algebra, Ordinary Differential Equations, Numerical Computing, Analysis

TECHNICAL SKILLS

Programming Languages: Java, Python, C#, C/C++, Visual Basic, JavaScript, TypeScript, SQL, HTML, CSS

Systems: Windows, Linux

Software & Tools: GitHub, Unity, IntelliJ, PyCharm, Visual Studio, Eclipse, JSON, MS SQL Server, MATLAB

Concepts: Object-Oriented Programming, Data Structures (Stacks, Queues, Linked Lists, Trees, Graphs, Dictionaries, DSU), Algorithms, Serialization, Memory Management, System Calls, Concurrency, Databases, Web App Servers, IEEE 754 Arithmetic

EXPERIENCE & PROJECTS

Freelance Computer Programmer | GitHub.com/Ryan-Shok

2018 - Present

- Built an arbitrage web application to automatically scrape e-commerce sites, analyze real-time resale profitability, and manage the full pipeline from deal discovery to Amazon listing using **REST APIs** and a **SQL**-backed local database. Implemented pricing, shipping, fee, and margin calculations with ranked opportunity scoring. Developed a **full-stack web UI and backend services** in **JavaScript** and **TypeScript/Node.js**
- Built an Atari Breakout game in **C**, implementing real-time **input handling**, **collision detection**, and **loop logic**
- Created a 2D platform shooter in **C#**, focusing on **object-oriented design**, **modular gameplay components**, and **state management**
- Implemented an UNO strategy game in **Java**, applying **algorithmic decision-making** and **game-state evaluation**
- Wrote a fully functioning **WeensyOS**, implementing **system calls**, and **virtual and physical memory management** while minding concurrency and maintaining **synchronization** in a **Linux environment**
- Implemented **JSON-based serialization** using **Java GSON** to persist and restore complex game state data for a gacha-style loot system

Content Engineer Intern | American Contract Bridge League

2025

- Supported **digital content development** and educational outreach
- Implemented **OBS overlays** to improve livestream and recorded content presentation
- Coordinated with a small team to improve and monitor **content modularity**
- Evaluated **performance metrics**, including user retention, and looked to **automated feedback** to enhance content quality

Mathematics Tutor and Grader | NYU Courant Institute of Mathematical Sciences

2025 - Present

- Graded 14 homework assignments weekly for 150 Calculus students
- Ensured grading **consistency with departmental standards**
- Provided **constructive written feedback** to support student understanding
- Explored concepts in greater depth with students desiring extra tutoring

AWARDS

- NYU French Department Prix de Distinction
- National Merit Commended Scholar
- Aquatic First Aid Certification

EXTRACURRICULAR ACTIVITIES

Library Assistant

Millburn Free Public Library

Treasurer

NYU Bridge and Spades Club

Environmental Conservation Volunteer

City of Richmond Hill

Captain

Bayview Hill Kayaking Club

LANGUAGES

- English
- French
- Persian