

Ryan Shokrpour

Software Engineer

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 Ryan-Shok

EDUCATION

New York University - Computer Science & Math Joint Major | 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*

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

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

EXPERIENCE & PROJECTS

Computer Programmer | GitHub.com/Ryan-Shok

2018 - Present

- Developed multiple software projects across C, C#, and Java, targeting both Linux and Windows environments
- 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
- Modeled budget growth and expense decay using **differential equations**, solving them with **Python** to make budgeting and cost-optimization decisions
- Used Python-based **web scraping** and SQL (Microsoft SQL Server) to collect, store, and analyze large datasets for data-driven research.

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