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

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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

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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

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

LANGUAGES
- English
- French
- Persian

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