

# Bertan Berker

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## Education

**Rochester Institute of Technology**

*Expected Graduation: May 2025*

**Bachelor of Science** in *Computer Science* | **Minor** in *Business Administration & Communication* | **GPA 3.5/4.0**

**Relevant Coursework:** Introduction to Software Engineering, Analysis of Algorithms, Concepts of Parallel and Distributed Systems, Principles of Data Management, Introduction to AI, Principles of Data Mining

## Work Experience

**College of Science, RIT** | Machine Learning Research Assistant

*May 2024 - Aug. 2024*

- Improved ML model analysis by creating visual tools like confusion matrices, Venn diagrams, and scatter plots, aiding in identifying key performance factors for DNA-binding protein prediction
- Engineered a hybrid framework combining protein language models and GNNs, boosting prediction accuracy by 8%

**Wegmans Food Markets, Inc.** | Software Engineer Intern

*Jan. 2023 - June 2023*

- Consolidated 5 databases into a Node.js-powered unified environment using MongoDB, streamlining operations for six divisions
- Created a Microsoft Power App using Power BI, DAX, SQL, enabling Wegmans Food Market's senior leadership to manage \$500M of annual capital spend
- Automated contractor documentation for 65 contractors in the Construction Division using Power Automate and Excel scripts, replacing outdated manual systems

**Simone Center for Innovation & Entrepreneurship** | Co-Founder of Impedimenta

*May 2022 - Aug. 2022*

- Managed a 12-member cross-functional team to deliver a decentralized web app minimum viable product, providing cloud storage to 8 small businesses
- Developed 2 Rust-based smart contracts on the Solana Network, enabling automated exchanges for 35+ users

## Personal Projects

**Decentralized Blackjack Simulation & AI-Driven Bots**

*June 2024 - July 2024*

- Built a decentralized Blackjack web app with React JS, Flask, and Solidity, offering trustless payment and gaming experiences
- Designed 6 AI-driven bots using neural networks, random forests, decision trees and reinforcement learning, achieving a 30% profit margin

**Decentralized Tutor Application**

*June 2024 - July 2024*

- Architected a decentralized backend using Solidity and Truffle framework, implementing smart contracts for a tutor management system on an Ethereum test blockchain with Ganache
- Implemented a CLI interface with web3.py to facilitate seamless interaction between users and the blockchain, enabling secure and transparent tutor-session management

## Skills

**Programming Languages:** Solidity, Python, JavaScript, Rust, SQL, C++

**Frameworks:** Truffle Framework, Hardhat, Flask, Node.js

**Libraries & Tools:** web3.js, ethers.js, Ganache, OpenZeppelin

## Relevant Leadership Experience

**RIT Artificial Intelligence Club** | Event Manager

*Apr. 2023 - Present*

- Delivered 4 technical presentations on AI applications, including options trading strategies and music generation, while organizing over 15 AI-focused events for 30+ members

**RIT Business Consulting Club** | Co-Founder & President

*Oct. 2023 - Oct. 2024*

- Founded a technology consulting club, assisting small businesses with tech solutions while educating members on consulting frameworks and interview techniques