

# Elan Rubin

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## Education

### Drexel University

*B.S. Computer Science – AI/ML & Systems Architecture Concentrations*

Philadelphia, PA

*Sept. 2023 – Jun. 2028*

- **Advanced Coursework:** Data Structures & Algorithms, Object-Oriented Programming, Software Engineering, Advanced Programming Techniques, Mathematical Foundations of CS, Artificial Intelligence, Systems Architecture

## Professional Experience

### BlackRock

*Separately Managed Accounts (SMA) Solutions - Tech Analyst*

Princeton, NJ

*Mar. – Sept. 2025*

- Leveraged Python Pandas to accelerate automated processes, improving runtime of daily audit job by **80%**
- Generated scalable report infrastructure with openpyxl, supporting portfolio managers' workflows
- Contributed to enterprise-level optimizer system handling securities portfolio re-balancing

### Legoco E-commerce - etsy.com/shop/Legoco

*Technical Co-founder & Operations Lead*

Boulder, CO

*2019 – 2024*

- Scaled operations to **\$125,000** in revenue with **40+** products, maintaining **4.95/5** average rating
- Developed automated inventory management system using Java, reducing manual processing time by **70%**
- Implemented data analytics pipeline for market research, leading to increased product success rates

## Technical Skills

**Languages:** C#, Python, Java, JavaScript, HTML/CSS, C, SQL, R

**Technologies:** Azure Devops, Git, Unity Game Engine, VS Code, Visual Studio, Linux/Bash, AWS, Docker

**Frameworks:** React, Node.js, Express.js, MongoDB, REST APIs, WebGL

**Methodologies:** Agile/Scrum, Test-Driven Development, CI/CD, SOLID Principles

## Technical Projects

### ElanMakesGames - elanmakesgames.itch.io

*Lead Software Engineer & Technical Director*

Philadelphia, PA

*2020 – Present*

- Engineered and deployed **20+** live web applications using C#, Unity and WebGL, serving **75,000+** total users
- Maintained and updated site infrastructure, resulting in **+95%** uptime on full-stack web apps
- Managed development team to earn **Newgrounds Best Game Award**, managing complete product lifecycle

### Combinatorial Optimization Research

*Lead Research Engineer*

Boulder, CO

*2021–2022*

- Engineered simulation framework in C#, processing **1M+** data points for genetic algorithm analysis
- Published **51-page** research paper on optimization techniques and crossover operators

**EdEquity:** Developed scalable education platform using AWS Rekognition and Flask. Engineered custom LLM solution processing **200+** daily queries with **95%** accuracy

**BirderBase:** Architected ML-powered identification system using Azure Computer Vision and Node.js. Achieved **90%** accuracy in species classification. Implemented custom KNN clustering algorithm for visualization of bird distribution

**Healthcare Access Navigator:** Built full-stack healthcare mapping system using Leaflet.js and Firebase, serving **30+** facilities. Implemented custom geolocation algorithms to reduce search time

## Leadership & Achievements

- **Drexel Game Developers Group:** Vice President, driving member engagement and retention
- **Hack4Impact Drexel:** Front-end developer - architecting React native applications for non-profits
- **PGM Global Game Jawn:** Led team to place **1st** among 75+ developers, delivering on inventive game design
- **Philadelphia Social Justice Hackathon:** Secured **3rd** place for innovative healthcare solution and implementation