

Nicholas Carnevale

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EDUCATION

Lehigh University, Honors College, Bethlehem PA

September 2021-May 2025

Bachelor of Science in Computer Science and Business, AI Concentration

GPA 3.84

Dean's Scholar Recipient; Achieved Dean's List every semester

Lehigh CSB Honors Study & Intern Abroad

May 2023-July 2023

Institute for the International Education of Students, Barcelona, Spain

Relevant Coursework: Programming and Data Structures, Systems Software, Software Engineering, Databases

PROFESSIONAL EXPERIENCE

Blockchain/AI Python Developer

January 2024-Present

MacguyverTech: Blockchain & AI For Cybersecurity

Bethlehem, PA

- Continuously working on creating a Smart Contract scanning module that identifies security vulnerabilities and performance issues for an existing cybersecurity scanning application
- Developed module with Python/Javascript to identify different levels of vulnerability and connect to the existing Appwrite database.
- Researched and used Llama-index AI libraries to query openAI to analyze scanned smart contracts
- Exploring creating Vector store index and using Hugging Face embedding models to fine tune an existing AI model to better recognize vulnerabilities in smart contracts
- Organized team and was the primary member to communicate with sponsor and set up meetings
- Diligently kept team on pace for goals and maintained an agile project management (weekly sprints)

Blockchain Researcher

May 2024-Present

Standardized Blockchain Benchmark Framework Research

Bethlehem, PA

- Building off of Layer-1 Benchmarking research done last summer. Primary Goal: Develop a framework that fairly, transparently standardizes benchmarking blockchain performance
- Specialized in Layer-2 solutions. Researching all the L2 technologies and major players and identifying current bottlenecks, starting to develop an idea of how to benchmark L2s
- Analyzed which L2 solutions are of primary importance: Ie. More important to benchmark performance of optimistic and ZK rollups rather than state channels and side chains
- Sparked discussion about finality of transactions after they are bridged to L2s, how can we benchmark throughput and latency for these systems, made initial framework design decisions
- Contributed to a scholarly paper written on the challenges and framework to benchmark L2s

Backend Software Engineer

April 2023-Sept 2023

Devola Technologies

Remote/ Bethlehem, PA

- Created endpoint with TS for adding user, and setting up payments with Stripe on project backend
- Created APIs to set up new user, authenticate user, logout, create a job, cancel job, pay for a job
- Sparked & pitched a business idea to automate email sending for customers
- Developed a script to automate email sending using gmail's SMTP server
- Contacted potential business partners and set up & participated in online meetings

ADDITIONAL INFORMATION

- Proficiencies: Java, C++, C, SQL, Python, Rust
- Frameworks: Linux, Heroku, React, Wordpress, Node.js, APIs, Appwrite, Git, Github

INVOLVEMENT:

Lehigh Club Soccer, Lehigh Computer Science and Business Assn., Lehigh Blockchain, ATO Fraternity