

Caius Chevalier

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EDUCATION

Binghamton University

B.S. in Computer Science

Vestal, NY

Expected May 2029

- **Honors & Standing:** Presidential Scholar, Dean's List | **Major GPA:** 3.90/4.00
- **Relevant Coursework:** Data Structures & Algorithms, Computer Architecture, Linear Algebra, Calculus I-II
- **Involvement:** ColorStackBU, HackBU, Poker Club, Chess Club

EXPERIENCE

Software Engineering Intern

May 2026 – Aug. 2026

Knot

New York, NY

- Delivered 5 production CardSwitcher merchant integrations now live to cardholders across leading fintechs and banks, plus merchant fixes that helped ready the platform's first Canadian launch with the country's largest bank
- Owned a TransactionLink integration from a top US P2P payments platform's request to production, building the item-level purchase-data parser and hardening it in beta against 20+ data-quality edge cases
- Built agentic SubscriptionManager tooling that gathered richer merchant data and pre-implementation insight, powering 20+ downstream integrations and significantly cutting build time and QA rework

Founder

Mar. 2026 – Present

ClubDesk

Vestal, NY

- Shipped a full-stack club-management platform (Next.js, Supabase) adopted by 40+ student-org users, automating 100+ weekly check-ins and saving leaders hours each week
- Iterated directly with club e-boards across 10+ interviews, shaping the platform around their real workflows and shipping the features leaders actually asked for

Undergraduate Researcher

Nov. 2025 – Present

Binghamton University - Systems Security Lab

Vestal, NY

- Trained a self-supervised transformer encoder-decoder on 50k unlabeled x86-64 blocks to learn assembly semantics from instruction reordering alone, exactly reconstructing 11+ instruction blocks 25% of the time
- Extending the model into an error-tolerant disassembler that recovers corrupted binaries, benchmarking tolerance to instruction insertion, deletion, and substitution as the core implementation of our upcoming paper

PROJECTS

VirtualGuard | C#, .NET, MSIL, AsmResolver, Echo, Code Virtualization

Nov. 2023 – May 2024

- Built a .NET code virtualization obfuscator that lifts 200+ MSIL opcodes into a custom 49-instruction bytecode ISA, executed by an embedded virtual machine regenerated uniquely on every compile
- Eliminated static dispatcher signatures through a dispatcher-less handler chain, randomized fixup-byte deltas, and arithmetic-only branching, resisting the automated devirtualization that cracked earlier public versions

Shomi, 3rd @ HackPrinceton (KnotAPI Track) | Python, RAG, Photon, KnotAPI

Apr. 2026

- Built an autonomous iMessage shopping agent that turns a natural-language text into a completed purchase, orchestrating search, selection, and checkout across live merchants with Gemini
- Engineered a retrieval layer using vector databases and web scraping that learns from a user's shopping history to match intent to real-time product data, grounding the agent's choices in live merchant catalogs

Neurova, 1st Overall @ Binghamton's Codefest | React, ReactFlow, TypeScript, Emotiv Cortex

Oct. 2025

- Built a brain-computer interface platform mapping real-time EEG emotional states to external integrations through a custom ReactFlow node editor, letting users wire brain signals to actions with drag-and-drop logic

TECHNICAL SKILLS

Languages: C#, C++, Python, TypeScript, JavaScript, Java, SQL, x86-64 Assembly, MSIL

Frameworks: Next.js, React, Supabase, shadcn/ui, Tailwind CSS, PyTorch, Flask

Tools & Cloud: Google Cloud, BigQuery, Docker, GitHub Actions, Sentry, Proxyman, IDA Pro, Linear, Git