Alexander Ahmann

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EDUCATION

Southern New Hampshire University Manchester, NH
Bachelors of Science in Computer Science 2020–2025

- Minor in Mathematics and concentration in Data Analysis
- Accolades: NSLS Member, Honor Roll

The New Life School Bronx, NY
High school diploma 2013–2015

- Accolades: Honor Roll

EXPERIENCE

Independent Work Online
Nekana Technologies Sept. 2020—Present

- Participant in several competitive programming events and hackathons
  * Ranking #11,110 (out of 138,001) users on *DM::OJ* code judge platform
- Participated in various infosec capture the flags, wargames, and online labs
  * *TryHackMe*: completed 199 labs, earned 22 badges and in the top 1%
  * *crackmes.one*: published two (2) reverse engineering solutions
- Published *Google Dorks* to discover vulnerable web applications
- Written technical literature aimed at both technical and general audiences
  * Published onto edited journals such as *InfoSec Write-ups*, *JavaScript in Plain English*, *Math Simplified*, *Level Up Coding* and more
- Participated in virtual science fairs and other STEM-oriented competitions
- Collaborated on online teams when solving various tasks and problems

LaGuardia Community College Queens, NY
Undergraduate Research Assistant Feb. 2019—Apr. 2019

Worked with Dr. Roman Senkov and a diverse corps of undergraduate researchers to investigate problems in nuclear physics

- Worked with computational physics models
- Automated tasks with Unix shell scripts
- Taught rudimentary Linux concepts to colleagues

ICT SKILLS

- **Programming:** Python, C++, C#, Java, JavaScript, Visual Basic, VBScript, Go, R, SQL, D, LaTeX
- **Utilities:** IDA Pro, Ghidra, Mandiant Redline, Wireshark, lxc (Linux Containers), sqlmap, Burp Suite, OWASP "ZAP" Zed Attack Proxy
- **Command-line tools**: tar, rsync, awk, dd, git
- **Frameworks:** Metasploit, scikit-learn, Jekyll
- **Operating Systems:** Debian, Ubuntu, Windows Server, Windows XP/7/8/10
- **Networking:** TCP/IP

Research papers

- **Ahmann, A.**, Nair, R. (2021). A simple gravitational simulator in Python [Unfinished Paper]. *Researchers.One.* Link: https://researchers.one/articles/21.11.00002

Posters

- **Ahmann, A.**, Alzogaray, A., Senkov, R., & Velasquez, J. (2019). *Nuclear Level Density according to Fermi-Gas and Constant Temperature Models.* In APS April Meeting 2019 (Vol. 64). Denver, CO: American Physical Society. doi:10.17613/k3qd-bb48

Selected reports and writeups

- **Aleksey*** (2022). *TryHackMe writeup: A cursory analysis of the Jigsaw ransomware.* InfoSec Write-ups. Link: https://infosecwriteups.com/tryhackme-writeup-a-cursory-analysis-of-the-jigsaw-ransomware-ee949b444f3f

- **Aleksey*** (2022). *How meaningful is the arithmetic mean: Calculating the normal distribution probability of the arithmetic mean given its standard deviation.* Level Up Coding. Link: https://levelup.gitconnected.com/how-meaningful-is-the-arithmetic-mean-2a03433df883

- **Aleksey*** (2022). *TryHackMe writeup: Skynet.* InfoSec Write-ups. Link: https://infosecwriteups.com/tryhackme-writeup-skynet-2c068f19521b

- **Aleksey*** (2022). *An application of Dawkins' weasel to cracking a simple XOR cipher.* Artifical Intelligence in Plain English. Link: https://ai.plainenglish.io/a-n-application-of-dawkins-weasel-to-cracking-a-simple-xor-cipher-5459f61dda39

- **Aleksey*** (2020). *Writeup to the Decompetition capture the flag.* InfoSec Write-ups. Link: https://infosecwriteups.com/writeup-to-the-decompetition-capture-the-flag-2020-3a3f14887525

- **Ahmann, A.** (2020). *Implicit bias and fatal police encounters.* Independent Publication. Link: https://writers.work/aleksey/portfolio/-ML0ucL6zfemspQ9yVjR

- **Ahmann, A.** (2019). *Rudimentary Physics With Python: An Application of Python Computer Algebra to Perform Calculus-based Kinematic Analysis.* OSF Preprints. doi:10.31219/osf.io/ezqxk

*Note that sometimes I write under the alias *Aleksey*

Articles for general audiences

- **Aleksey*** (2022). *A Simple JavaScript Sorting Utility: Or, an attempt at thinking like a programmer.* JavaScript in Plain English. Link: https://javascript.plainenglish.io/a-simple-javascript-sorting-utility-bc08fb54134c

- **Aleksey*** (2021). *The making of the XOR cipher: Mathematical proof that $m \equiv ((m \oplus k) \oplus k) \equiv (c \oplus k)$.* InfoSec Write-ups. Link: https://infosecwriteups.com/the-making-of-the-xor-cipher-794d2e6c964f

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Projects

- **VX Reloaded** — collection of proof-of-concept malware that myself and others wrote
    - Link: https://vxreloaded.github.io

- **OSSU coursework** — my work regarding a set of cheap, non-accredited courses equivalent to a diploma in various university majors
    - Currently "double-majoring" in computer science and bioinformatics
    - Link: https://github.com/Alekseyyy/OSSU

Selected certifications and coursework

- **Data Analytics**
  Google, Dec. 2022

- **Python for InfoSec**
  Coursera, Jun. 2021

- **Hands on Hacking**
  Hacker House, Dec. 2017

- **Junior Penetration Tester**
  TryHackMe, Nov. 2022

- **Computer Security & Systems Management**
  Coursera, Jul. 2018

- **IT Fundamentals**
  CompTIA, Sept. 2016

Blogging

- Articles on the *0x00sec* offensive security engineering forum:
    - https://0x00sec.org/u/lambdacalculus/activity

- *Principia Publica*— self-published essays on American public policy:
    - https://epsiloncalculus.substack.com/

- *Medium* portfolio:
    - https://medium.com/@EpsilonCalculus

- *Hashnode* portfolio:
    - https://hashnode.com/@LambdaCalculus

- *Writers Work* portfolio:
    - https://writers.work/aleksey

Outreach

- Volunteer editor at Critique Circle   13 Hours
  Edited many articles and short stories
- Volunteer at Holy Apostles Soup Kitchen   100+ Hours
  Cleaned trays, busted tables, packed food, and collaborated with a diverse staff

Languages

- **English:**   Native/Fluent

Last updated: December 23, 2022