BRIAN NI

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EDUCATION

STANFORD UNIVERSITY *Stanford, CA*
Major: B.S. Computer Science, Artificial Intelligence Track, 3.7 GPA
Relevant Coursework: Machine Learning with Graphs, Natural Language Processing with Deep Learning, Artificial Intelligence: Principles and Techniques, Applied Matrix Theory, Design and Analysis of Algorithms, Operating System Principles, Infrastructure at Scale, Cloud Computing
Organizations: Gordian Knot Center for National Security Innovation, Association for Computing Machinery, Affiliated Stanford Entrepreneurial Students, Applied Cyber Group (Collegiate Penetration Testing Competition team specialist), Stanford Pre-Business Association

TROY HIGH SCHOOL *Fullerton, CA*
Curriculars: 4.87 GPA, Valedictorian, Troy Tech STEM Magnet Program
Involvements: MIT MOSTEC (published author on software architecture), MIT BWSI (threat intelligence analyst), Yale YGS, Navy JROTC (unit officer, c/LTJG), Eagle Scout (Senior Patrol Leader), USA Computing Olympiad Gold Division, Varsity Track & Field

PROFESSIONAL EXPERIENCE

SPACE EXPLORATION TECHNOLOGIES CORP. (SPACEX) *Hawthorne, CA*
Software, Security Engineer Intern *Jun 2025 – Sep 2025*
• Designed and shipped a firewall automation service for validating, modifying, and deploying cross-platform firewall configurations at scale
• Created an internal security policy and backup management program for use by Security Engineering teams, saving SpaceX over $200,000 annually
• Devised and executed network security and engineering operations for protecting and enhancing ground systems for launch and flight operations

AMAZON (AWS - AMAZON WEB SERVICES) *Sunnyvale, CA*
Software Development Engineer Intern *Jun 2024 – Sep 2024*
• Designed and implemented App Model validation mechanisms for AWS App Studio—a generative AI-powered, low-code application builder
• Created pre-deployment environment (deployment groups and lambda instances) using AWS Lambda for pipeline integration
• Integrated with Builder Session Service to automate pre-deployment validation workflows, establishing guardrails and avoiding unnecessary builds

COMPUTER SCIENCE DEPARTMENT, UNIVERSITY OF SOUTHERN CALIFORNIA *Los Angeles, CA*
Deep Learning Research Intern *May 2022 – Sep 2023*
• Analyzed over 10,000 commits (in ffmpeg and qemu Github repositories) for security vulnerabilities to curate dataset for machine learning
• Assessed and modified two deep learning implementations, Devign and ReVeal, to automate vulnerability detection at the functional layer
• Group research on deep learning-based vulnerability detection published in the International Conference on Software Engineering (ICSE) 2024

LEADERSHIP & INVOLVEMENT

ASES BREAKTHROUGH (MS&E 478—STANFORD-ACCREDITED COURSE) *Stanford, CA*
Co-Director *Nov 2021 – Aug 2022*
• ASES — Stanford's premier student-run entrepreneurship society that runs VC/entrepreneurship programs, speaker series, and student accelerators.
• Led the 8-week, project-based VC/early-stage program (curriculum, admissions & mentor network, and capstone investor panels/projects)

TROY CYBER DEFENSE *Orange County, CA*
Lead Instructor *Mar 2021 – Sep 2023*
• Developed 4-year curriculum of network security classes for world's largest youth cyber program, inspiring students' passion for cybersecurity
• Produce instructional material for classes held on a weekly basis, and delegate responsibilities and monitor progress of 12 volunteer instructors
• Teach cybersecurity principles and computer networking concepts to 400+ middle and high school students throughout Southern California, annually

PINNACLE HACKATHON *Dallas, TX*
Co-Organizer *Nov 2021 – Aug 2022*
• Led and organized intercollegiate hackathon, Pinnacle, inviting 200 of the world's brightest hackers with a fully-sponsored invitation to Dallas
• Partnered with 50 of the world's largest collegiate hackathons: TreeHacks (Stanford), HackPrinceton (Princeton), HackHarvard (Harvard), etc.

COMPETITIONS

NATIONAL SECURITY HACKATHON (HOSTED BY CEREBRAL VALLEY X SHIELD CAPITAL) *San Francisco, CA*
Machine Learning, Natural Language Processing, Generative AI *May 2024*
• Designed and developed EightEye, a dynamic insight timeline tool enabling real-time and retrospective analysis of security-related events by quickly and accurately synthesizing vast amounts of unstructured social media and geospatial data into actionable intelligence

CYBERPATRIOT *Bethesda, MD*
Team Captain, Computer Networking Lead & Windows Security Specialist *Jun 2019 – Jun 2023*
• 2021/2023 National Champion, 2022 National Runner-Up, 2020 National Finalist (4-time National Finalist, All-American Distinction), 4-time California State Champions; competed against 5000+ teams internationally; protected various services and networks against live Red Team attacks
• 2021/2022 Cisco Networking Challenge National Runner-Ups; implemented HSRP, NAT for link redundancy, configured IPSs for network protection

US CYBER CHALLENGE *Arlington, VA*
Information Security Analyst *Oct 2020 – Oct 2022*
• 2021 National Champion among 2000+ competitors; analyzed forensic artifacts and Supervisory Control and Data Acquisition systems for vulnerability
• Researched SMB remote code execution vulnerabilities to perform quantitative risk analysis, presented remediation options to McAfee and DoJ

CURRENT PROJECTS

PROJECT MIRKWOOD   *Stanford, CA*
GKC National Security Innovation Scholar   *Sep 2025 – Present*
• Joint effort between Stanford Gordian Knot Center, Army Research Laboratory, and U.S. Army Special Operations Command mission partners
• Building modular multi-modal sensor fusion pods for autonomous, unmanned ground vehicles for USSOCOM and 2nd Ranger Battalion

VANGUARD DEFENSE (PALANTIR FELLOWSHIP COHORT #000)   *El Segundo, CA*
Co-Founder (on Leave)   *Jun 2023 – Present*
• Accelerating innovation of autonomous electronic defense capabilities through the democratization of high quality RF and signal data
• Designing and developing reliable electronic data infrastructure for defense sector, from data extraction to curation to model integration

Other Awards/Distinctions: 2021 OpenCV AI International Competition Finalist; CS309A Best Paper; US Presidential Scholar Semifinalist; Amazon Future Engineer
Skills: Machine Learning and Deep Learning (Graphs), Natural Language Processing, Generative AI, Signal Processing, Computer Networking and Cybersecurity
Technologies: Python, Java, C++, HTML, CSS, Javascript, NodeJS; AWS (Lambda, App Studio), PyTorch, Tensorflow, NumPy; Cisco IOS, Linux, Scapy, WireShark