Amir Ghaemi

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Education

University of Maryland • M.E. Systems Engineering - Software Focused • May 2025

MD Senatorial Scholarship Recipient | T&E | Cost Analysis | Project Management | Software Engineering | AI/ML

University of Maryland • B.S. Computer Engineering • Completed

2+2 Scholarship Recipient | Yurie Scholarship Recipient | Electric Cars Capstone Senior Member

Harford Community College • A.S. Engineering & A.S. Mathematics • Completed

Honors Program | President's & Dean's List | Engineering Club VP | 1st Place STEM Event | Member of SAME

Technical Skills & Certifications

- Programming: Python | JavaScript | Java | Docker | Streamlit | Git | Linux | MatLab | R | Unix | LLMs
- Software: ElasticSearch | Apache Flagon | Cameo | Adobe CC | Jupyter | Visio | Azure | ChainForge
- **Skills:** Research & Development | Test & Evaluation | Product Management | Workforce Development | Agile Development | Prompt Engineering & Chaining | Generative AI Development | Project Tech Lead | LLM Integration
- Certifications: DoD Security Clearance Available Upon Request | INCOSE ASEP Equivalency | Toast Management

Technical Experience

Applied Research Laboratory for Intelligence and Security • Software Systems Engineer • June 2021 - Present

- Developed and deployed a NIPR-accessible web app with LLMs and generative AI via prompt engineering.
- Wrote a proposal to integrate LLMs and AI into government systems to enhance efficiency and accuracy.
- Performed quantitative and qualitative data analysis, utilizing python libraries and packages.
- Developed an all-in-one solution for processing and handling of instrumentation logs while providing real-time analytics, a product of high importance to DoD/IC serving as the product manager and active developer.
- Identified opportunities for the Intelligence Community (IC) in human-centered recombinant AI.
- Planning committee member for the Research for Intelligence and Security Challenges (RISC) Internship 120+ interns. Supported outreach efforts resulting in 400+ applicants, and organized professional development events.
- Conducting regular weekly internal team check-ins and one-on-ones to ensure above-expectations progress and bootstrapped new team members into the projects. Also, heavily contributed to workforce development plans.
- Test and Evaluation of continuously developing complicated tools important to the DoD through instrumentation.
- Conducted descriptive analyses on behavioral data using programming and data visualization.
- Collaborated with DoD stakeholders, conducted regular stand-ups, and provided live demos to customers.
- Presented analytic products to stakeholders using computational notebooks such as Jupyter.
- Contributed to the Apache Software Foundation, specifically the Incubator Flagon UserAle.js Distill repositories.
- Published a paper on "Deep System Instrumentation for In Situ Human-AI Interaction Measurement Within Complex Information Systems" - <u>Link</u>

SJ Associates • Technical Semiconductor Associate Intern • Winter 2021

• Researched electronic components and identified semiconductor manufacturers based on customer needs.

Applied Research Laboratory for Intelligence and Security • RISC Intern • Summer 2021

- Studied open-source software opportunities and threats for the Intelligence Community while examining the metrics and responses around previous security breaches and built data-scraping and ML models using Python.
- Researched AI and the IC by reviewing government agency annual reports and academic papers.
- Delivered presentations recommending countermeasures to ARLIS and ODNI stakeholders.

Penelope Solar & Engineering, LLC • Assistant Director • Jan-Nov 2020

Produced informational videos, monetized Revenue Collection, and managed website and social media.

Applied Research Laboratory for Intelligence and Security • R&D Intern • Summer 2020

- Curated and annotated hybrid sparse-dense and graph-based ML workflows.
- Designed experimental pipelines, mapped workflows to benchmarks, and analyzed IC/DoD trade-offs.

Harford Community College • Book Co-Author • Summer 2019

• Wrote a book, 'An Introduction To MatLab', used in a mathematics course on campus.