Taha Shaikh

taha19@vt.edu • (804) 528 9318
linkedin.com/in/tahasv • github.com/t-aha

EDUCATION

Virginia Polytechnic Institute and State University (Virginia Tech)   **Blacksburg, Virginia**
Primary Major: Candidate for Bachelor of Science in Computer Engineering   *May 2023*
Secondary Major: Candidate for Bachelor of Science in Mathematics

Dean's List (all semesters), Calhoun Discovery Program Scholar (full merit scholarship)

SKILLS AND CERTIFICATIONS

- Programming: Wolfram Mathematica, C++, MATLAB, Python (NumPy, OpenAI Gym, scikit-learn, pandas), JavaScript
- Software: IntelliJ, Visual Studio, Intel ModelSim, Ableton Live, GNU Image Manipulation Program

EXPERIENCE

Commodity Investing by Students (COINS)   **Blacksburg, Virginia**
Quantitative Analyst & Website Development   *September 2021 – Present*

- Assisted in investing up to $1M on behalf of the Virginia Tech Foundation for the nation's only student-run commodity trading group diversified in futures-based ETFs and ETNs
- Made trade recommendations for buying and selling commodity futures using technical and fundamental analysis, regression analysis, and critical thinking skills garnered during targeted training and real-world trading experience
- Created interactive web platform using Plotly and Python Dash showcasing statistical analyses of time-series commodity futures data for trade recommendations

J.P. Morgan Chase & Co.   **Columbus, Ohio**
Software Engineering Intern   *May 2022 – August 2022*

- Designed pull-request tracker using React.js and Gaia highlighting suspicious pull requests throughout entire division
- Created API health monitor using React.js allowing internal and external clients to access diagnostics regarding several APIs for data processing and financial services
- Built a support homepage for JPMC's Data Pipeline Division with Hugo that provides sleek, directional support for users within the company

MITRE Corporation   **McLean, Virginia**
Intelligence, Surveillance, & Reconnaissance Cloud Engineer Intern   *May 2021 – August 2021*

- Developed a decentralized data storage and cloud computing service for the National Geospatial-Intelligence Agency (NGA) using an Ethereum blockchain network hosted on Amazon Web Services outposts
- Presented project idea to NGA and Department of Defense department heads for use in international mission operations

RESEARCH

Hume Center Workforce Development Program   **Blacksburg, Virginia**
Research Intern   *September 2020 – May 2021*

- Collaborated with MITRE and the Hume Center at Virginia Tech to create multi-agent simulations using reinforcement learning to demonstrate proof of emergent behavior in semi-autonomous agents
- Presented final paper "Emergent Phenomena in Multi-Agent Systems for Maritime Remote Sensing" at National Security and Defense Colloquium in Arlington, VA

PROJECTS

FOD Finders   **Blacksburg, Virginia**
Software & Image Processing Engineer   *August 2022 – Present*

- Applied RANSAC and SIFT algorithms to align and detect differences in images taken by a rotating camera inside simulated fuel tanks for the purpose of identifying foreign object debris (FOD)
- Worked alongside engineers and executives at Boeing to deploy prototype in simulated 737 Max aircraft fuel tanks

Learner Vectors and Transition Matrices for Point of Need Learning   **Blacksburg, Virginia**
Software Engineer & Web Application Developer   *August 2021 – May 2022*

- Formulated application providing targeted reskilling and development paths for underskilled workers
- Collaborated with Boeing's skill acquisition department to equip workers in the Capital Youth Empowerment Program for success in Boeing's cybersecurity division

HONORS AND AWARDS

- Calhoun Discovery Program (full merit scholarship + $10,000 experiential learning grant)
- International Finalist in COMAP Mathematical Contest in Modeling (top 1.5% of teams globally)
- "A Visualization of Ternary Logic Structures" artwork featured at International Bridges Math-Art Conference
- National Piano Guild Advanced Bach Award (of 16 nationally)