Dr. Seth Garrett Hastings

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1323 E 21st ST 221, Tulsa, OK 74114

OBJECTIVE: Data Science, Research and Development, Business Analysis, Project Management, AI/ML

SUMMARY: From my earliest roles I have expressed a combination of business-minded big-picture scope and the technical training and interest to discern and solve complex problems in collaborative teams. Early problem solving led me to my engineering program where I took internships everywhere from NASA to a boutique marketing company. This interest crystallized in the coffee shop I co-founded with my roommate sophomore year, and carried into graduate school, where I took the podium in a team-based pitch competition. I further developed my problem solving and communication skills in graduate school with multi-disciplinary projects with psychologists and technologists, culminating in the development of a security dashboard that is currently in the patent process.

EDUCATION:

MS, PhD in Computer Science, Tandy School of Computer Science, The University of Tulsa, Tulsa

      Concentrations: Cyber Security

      PhD Dissertation: Expanding Authentication Log Utility through Novel Event Aggregation

      Research Group: Cyber-Hygiene Innovation Lab (CHIL)

      Advisor: Dr. Tyler Moore

      Dates: May 2023, May 2025

BSEE in Electrical Engineering, John Brown University, Siloam Springs

      Minor: Mathematics

      Co-Teacher: Collaborative Design Lab

      Project Lead: Senior Design Capstone

      Advisor: Dr. Ted Song

      Date Conferred: May 2020

SKILLS:

- **Cybersecurity:** log analytics, anomaly detection, proactive monitoring, governance & compliance (NIST)
- **Inference:** data pipelines & dashboards, log derivatives, integrating technical, behavioral and policy perspectives
- **Research:** qualitative & quantitative analysis, study design, technical writing, literature review
- **Collaboration:** multi-disciplinary team experience, audience-tailored presentations, highly personable
- **Programming:** c++, c, c#, Python, R, SPSS, SQL, PyTorch, tensorflow, kotlin, toml, yaml, cloud, CI/CD, ML/AI, object recognition, LLM applications, random forest, CNN, RNN, SVM, boosting, graphs
- **Project management**: budgeting, scheduling, stakeholder management, funding sources and applications, startup experience

PROFESSIONAL EXPERIENCE:

DEFT LLC, Tulsa, OK
Founder *(September 2024 - Present)*
- Cybersecurity and agentic AI consultation
- POC builds for pre-revenue startup

The University of Tulsa, Tulsa, OK
TU Cyber Fellow, Research Assistant, Computer Science *(May 2020 - May 2025)*
- Multifactor authentication (MFA) research
- Embedded with university Security Operations Center (SOC)

MSCI Inc, Tulsa, OK
Data and Technology Intern *(May 2022 - September 2022)*
- Azure Dev Ops CI/CD

Data and Technology Intern *(May 2021 - September 2021)*
- Cyber Security Policy and Compliance
- NIST framework control mapping and implementation

Ground Floor Coffee, Siloam Springs, AR
Operations Manager *(January 2018 - April 2020)*, Barista/Co-Founder *(August 2017 - January 2018)*
- Healthcode compliance, inventory management
- Employee training/operations
- Talent acquisition, head of marketing
- Food and drink service
- Equipment setup and maintenance

Protomotive Inc, Ponca, AR
Engineering Intern *(May 2019 - October 2019)*
- DOS BASIC to Windows C++ software port
- Electronics development and maintenance: custom knock sensor creation, generator repair, 3d scanning system

Big Deal Marketing LLC, Bentonville, AR
Outreach Coordinator *(May 2018 - August 2018)*
- Business Development focused on lead generation and client outreach - commission based

NASA Ames Research Center, Mountain View, CA

Mechanical Engineering Intern *(May 2017 - August 2017)*

- Experimental Aero-Physics branch: wind tunnel operation and data collection

- Data analysis and programming for commercial aircraft aeroacoustics

Complete work and volunteer history available upon request

PUBLICATIONS AND CONFERENCE PAPERS:

[1] Seth Hastings and Bruce Storms. Early Approach Noise Reduction. In *NASA Ames Research Center 2017 Office of Education Summer Abstract and Poster Book*. *NASA/SP-219877 (168) (2018)*

[2] Seth Hastings, Tyler Moore, Sal Aurigemma, and Bradley Brummel. Predicting authentication performance with psychological constructs. In *22nd Annual Security Conference (ASC) Proceedings*, 2023. [bib | paper]

[3] Seth Hastings, Corey Bolger, Philip Shumway, and Tyler Moore. Transforming raw authentication logs into interpretable events. *Workshop on SOC Operations and Construction (WOSOC)*. Internet Society, 2024. [bib | paper]

[4] Seth Hastings, Tyler Moore Bradley Brummel, and Sal Aurigemma. The influence of security related stress and self-efficacy on actual security behaviors over time. *16th IFIP WG 8.11/11.13 Dewald Roode Workshop on Information Systems Security Research*, 2024. [bib | paper]

[5] Seth Hastings, Tyler Moore. Authentication-Event Processing for Enhanced SOC Investigations. *Workshop on SOC Operations and Construction (WOSOC)*. Internet Society, 2025.

[6] Seth Hastings, Tyler Moore, Neil Gandal, and Noa Barnir. Quantifying Opportunity costs of enhanced security in multifactor authentication. Workshop on the Economics of Information Security (WEIS 2025)*, 2025.*

[7] Seth Hastings, Tyler Moore, Neil Gandal, and Noa Barnir. Quantifying Opportunity costs of enhanced security in multifactor authentication. In Information Systems Frontier Special Issue *SFI-D-24-00349, 2025.*

HONORS AND AWARDS:

Chancellors Scholarship - John Brown University (2016)
TU Cyber Fellow Scholarship - The University of Tulsa (2020)
Hurricane Pitch Competition 3rd Place (2023)
Dissertation Completion Fellowship - The University of Tulsa (2024)

CERTIFICATIONS:

NASA Wind Tunnel Operator - *NASA Ames Research Center (2017)*
Social and Behavioral Research - Basic/Refresher *CITI Program (2023-April 2026) ID: 5358460*