Grant Jurgensen

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(913) 940-2213 — Overland Park, Kansas

Education

Master of Science in Computer Science *June 2019 - May 2022*
University of Kansas GPA: 3.98

- Thesis: A Verified Architecture for Trustworthy Remote Attestation
- Awards: Outstanding Master's Researcher in the School of Engineering

Bachelor of Science in Computer Science *August 2015 - May 2019*
University of Kansas GPA: 3.94

- Minor in Mathematics
- Honors: Distinction, Honor's Program, Dean's Honor Roll

Work Experience

Computer Scientist *May 2022 - Present*
Kestrel Institute

- Currently working on formally verified synthesis of C programs from the ACL2 theorem prover. High-level specifications are written as ACL2 functions, and a series of transformations are employed to stepwise-refine the specification to a form amenable to synthesis.

Graduate Research Assistant *June 2019 - May 2022*
Undergraduate Research Assistant *June 2018 - May 2019*
University of Kansas

- Lead developer of our "Attestation Manager" (AM) prototype. The AM interprets a domain-specific attestation protocol language to perform specific system measurements and package the cryptographic evidence for the requester. Designed for cross-platform support, targeting Linux, macOS, and seL4. Written in CakeML and C.
- Contributed to the design of a system architecture for secure attestation. Developed a formal model of the system architecture start-up procedure in the Coq theorem prover to conduct formal proofs of safety and separation.
- Worked on the DARPA Cyber Assured Systems Engineering (CASE) project to integrate our AM into larger systems.

Undergraduate Teaching Fellow *September 2017 - May 2018*
University of Kansas

- Wrote practice problems which constituted half of the student's in-person class time.
- Assisted students through practice problems during class.

Publications

- Petz, A., Jurgensen, G., and Alexander, P. Design and Formal Verification of a Copland-based Attestation Protocol. In *ACM-IEEE International Conference on Formal Methods and Models for System Design (MEMOCODE'21)*, Virtual, Nov 20-22, 2021.

Skills

Programming Languages: Haskell, Standard ML, C, Common Lisp, C++
Theorem Provers: Coq, ACL2