WILL SHERWOOD

(832) 403-5854 wisherwood@utexas.edu https://cs.utexas.edu/~will

EDUCATION & SKILLS

University of Texas at Austin. *College Scholar (2018), University Honors (Spring 2019)* *August 2016 - May 2020*
B.S. in **Computer Science** (**Turing Scholar Honors**) and **Mathematics** (Departmental Honors), (**3.78 GPA**)

Computer Science Coursework: Data Structures, Algorithms (Honors), Computer Architecture (H), Operating Systems (H), Programming Languages (H), Data Mining (H), Quantum Information Science (H), Machine Learning Theory (graduate), Randomized Algorithms (graduate, current), Advanced Data Mining (Current), Computational Complexity (Current).

Mathematics Coursework: Discrete Math, Probability, Linear Algebra, Applied Number Theory, Topology, Algebraic Topology (graduate), Algebraic Structures, Knot Theory, Analysis on Manifolds, Stochastic Tropical Geometry (graduate).

Technologies C++, Python, Go, C, Java , Linux, LaTeX, Git, ···

EXPERIENCE

Citadel Securities. *Software Engineering Intern, Low Latency Group* *Chicago, IL; June - August 2019*

- Used methods in algebraic topology to quantify changes in structure of equity price correlations over time.
- Designed and implemented a latency sensitive telemetry system for U.S. equity trading applications which computes and persists statistical data across local storage and network.

VMware. *Software Engineering Intern, Pivotal Container Service* *Palo Alto, CA; May - August 2018*

- Built a kubernetes agent and DNS interface to bring networking information to a single endpoint.
- Gave a talk on provable security to Engineering team; presented my project via a posterboard session.

University of Texas. *Teaching Assistant for Discrete Mathematics* *Austin, TX; August - December 2017*

- Led in-class discussions, graded exams and assignments, and held office hours.

VMware. *Software Engineering Intern, vSphere Integrated Containers* *Austin, TX; May - August 2017*

- Implemented a feature to allow the creation of container network topologies, which enabled fine-grained control of networking data passing between containers.
- As this was an open source initiative, my changes are available at `github.com/vmware/vic`.

University of Texas. *Computational Design Research Lab* *Austin TX; January - May 2017*

- Implemented a genetic algorithm to optimize 3d-printing cost for printing structures by cutting the objects.

PROJECTS

BackBone Compiler *(Programming Languages Final Project, 2017)* Designed a programming language which has enough features to run system calls and do basic programming tasks. It is a lisp-like language with recursive functions, let bindings, arithmetic, and other features. Wrote a compiler from this language to LLVM.

UNiTE *(Hackathon group project, 2016)* Wrote the backend for a web-app using NodeJS. Utilized cryptography to securely share your location with friends that are close to you. Won best use of MongoDB.

iVanhoe *(Freelance Work, 2016)* Created a Server and Client to simulate a board game called iVanhoe in Java. It was used to do a martingale analysis on the game to discover strategies and develop a simple AI.

Neurava *(Research Project, 2015)* Built an extensible neural network library using Java. Most elements were written with the intent for the user to implement their own interchangeable pieces. Training occurred via stochastic gradient descent with numerical gradients.

AWARDS AND ORGANIZATIONS

Turing Scholars Student Association Research Evangelist *(2019-current)*

UTPC Competitive programming contest problem writer *(2017-current)*

ACM Programming Competition 3 x 1st placed team (2018/17), 2nd placed individual (2017)

Annual Citadel/Citadel Securities Poker Tournament Champion *(2019)*

UT Symphony Band, Percussionist *(January-May 2018)*