# Ashwin Madavan

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#### **EDUCATION**

# The University of Texas, Austin, TX (3.6)

Class of 2018

B.S. Computer Science, Turing Scholar Honors; B.S. Pure Mathematics Undergraduate Computational Finance (UCF) Member

Honors Courses

Computer Architecture
Computer Vision
Algorithms and Complexity

Discrete Math Quantum Computing Statistics Other Courses
Compilers
Topology
Computer Graphics

#### WORK EXPERIENCE

#### Affirm, San Francisco, CA. Software Engineering Intern

May - August 2017

>> Worked on platform infrastructure

Data Structures

Operating Systems

Linear Algebra

- » Designed and built a parallelized ETL framework in Python
- $\gg$  Dramatically increased performance for large batch processing jobs

## Twitter Inc., San Francisco, CA. London, UK. Software Engineering Intern May - December 2016

- >> Worked on Manhattan; the multi-tenant, highly available, key-value store
- $\gg$  Designed and built a distributed, hierarchical rate limiter in Java
- >> Implemented distributed database compaction to reclaim unused disk space, while keeping servers online
- » Designed and built a topology management service for all Twitter distributed storage services in Scala

#### Salesforce.com, San Francisco, CA. Software Engineering Intern

May - August 2015

- $\gg$  Worked in security; identity management and authentication
- > Tested, debugged, and created upgrade plan for SCIM, an open cloud user provisioning standard
- >> Debugged authentication issues for large customers
- >> Developed end-to-end test framework for two-factor authentication, OAuth, and SAML in Selenium and JUnit
- $\gg$  Fixed security bugs for the Summer 2015 release

## **PROJECTS**

Personal Website: http://madavan.com; GitHub: https://github.com/ashwin153

#### Caustic: Reinventing Database Transactions

- ≫ Distributed transactions on arbitrary key-values stores
- ≫ Article available at https://madavan.me/projects/caustic.html

# VIX Futures Roll (2016)

- >> Developed an algorithm to trade volatility futures
- >> Article available at https://madavan.me/projects/vix.html

## PacMan: Evolving an AI (2015)

- >> Wrote the classic arcade game in Java
- >> Designed a neural network that was trained using binary genetic algorithm
- >> Article available at https://madavan.me/projects/pacman.html

#### TECHNICAL SKILLS

Proficiency: Java, Scala, Python, Cxx, SQL

Exposure: Android, x86 Assembly, JavaScript, LATEX, Verilog, MATLAB, R