

Arnav Sastry

Software Engineer

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WORK EXPERIENCE

Facebook CURRENT, FROM SEP 2018
Software Engineer

Developed pipelines for reporting child sexual abuse imagery uncovered on Facebook's platforms to the National Center for Missing and Exploited Children. Collaborated with internal and external stakeholders on prioritizing development of features to maximize children saved while maintaining user privacy. Worked with Hack (PHP), Python, Javascript, and React.

Facebook SUMMER 2017
Software Engineering Intern

Developed approximation algorithms in Java to find optimal storage strategies for large Hadoop tables on disk. Dynamically re-wrote Hive queries to evaluate savings of algorithms on production queries. Reduced read operations by over 15% on large tables in Facebook's warm storage system. Worked with Hadoop, Hive, Java, and Python.

Addepar SUMMER 2016
Software Engineering Intern

Led development of new Java framework to generate APIs for the Addepar wealth management platform. Presented design decisions before Engineering Directors and VPs. Created proof-of-concept Addepar-Salesforce integration demoed by CEO at Salesforce's Dreamforce conference. Worked with Java and Python.

Twitter SUMMER 2015
Software Engineering Intern

Developed data structures in Scala to efficiently support autocomplete for large numbers of entries for internal sales software. Added rate limiting and exponential backoff between sales tools. Worked with Scala.

COMMUNITY CONTRIBUTIONS

International Collegiate Programming Contest (ICPC)

Competed from 2014-2018. 4 time ICPC South Central USA Regional Gold Medalist (2014-2017), Champion (2017). ICPC World Finalist (2018). ICPC South Central USA Problem Author (2018-2019).

Texas ACM & CS104C: Competitive Programming

Developed curriculum, lectured, and graded for CS104C: Competitive Programming at UT Austin. Taught algorithms and data structures to over 300 students over 6 semesters. Also served as co-president of Texas ACM and wrote and hosted fortnightly programming competitions for over 200 students.

University Interscholastic League

Wrote Java multiple choice exams and programming problems for high school students across the state of Texas, targeted for both students with minimal and international competitive programming experience.

EDUCATION

2014 – 2018 **B. S. Computer Science**
3.72 MAJOR GPA, TURING SCHOLARS HONORS
College of Natural Sciences
The University of Texas at Austin

2014 – 2018 **B. S. Mathematics, Pure Mathematics**
3.63 MAJOR GPA
College of Natural Sciences
The University of Texas at Austin

Relevant Computer Science Coursework

Computer Graphics, Ethical Hacking, Artificial Intelligence, Computer Vision & Machine Learning, Quantum Computing, Physical Simulations, Operating Systems, Algorithms, Declarative Programming, Programming Languages, System Security, Computer Architecture, Data Structures

PROJECTS

Smoothed Particle Hydrodynamics

Implemented realistic fluid dynamics simulation in C++. Improved simulation speed by writing a bounding volume hierarchy for faster collision detection and using multithreading to process physics calculations in parallel.

Air Guitar Hero

Developed Pebble Watch and Android applications to mimic a Guitar Hero controller. Won overall 2nd place, Hacker's Choice, and best use of Pebble Watch awards at HackTX 2016.

PUBLICATIONS

Hsiao-Yu Chen, **Arnav Sastry**, Wim M. van Rees, Etienne Vouga (2018). Physical Simulation of Environmentally Induced Thin Shell Deformation. *ACM Transactions on Graphics (SIGGRAPH)*, 37(4), 1-13.
doi:10.1145/3197517.3201395

SKILLS

PROFICIENT Java, Python, Javascript, Hack (PHP), Git, Linux, Mercurial
WORKED WITH C/C++, Scala, Haskell, Rust, Bash, L^AT_EX, React