

Souvik Banerjee

☎ 817-851-5114 | ✉ souvik1997@gmail.com | <https://souvik.me> | github.com/souvik1997

Experience

Apple Cupertino, CA
SOFTWARE ENGINEER: DARWIN KERNEL & RUNTIME Sep 2019 - Present

- Advanced platform security and stability by writing APIs and frameworks for device drivers.
- Enabled third-party developers to write kernel extensions and drivers for Apple Silicon Macs with new software features and developer outreach.
- Contributor to the XNU kernel, which is at the core of iOS, iPadOS, macOS, tvOS, and watchOS.
- Subject matter expert on IOKit and DriverKit, C++ device driver frameworks for macOS.

Point72: Cubist Systematic Strategies New York, NY
RESEARCH ANALYST INTERN: FX OPTIONS TRADING Dec 2018

- Improved automated trading systems by using Python and the FIX protocol to parallelize quote requests.

Citadel Securities Chicago, IL
SOFTWARE ENGINEER INTERN: LOW LATENCY Sep 2018 - Nov 2018

- Created developer tools for analyzing compiler optimizations and cache misses in order to improve high performance trading systems.

Apple Cupertino, CA
SOFTWARE ENGINEER INTERN: CORE KERNEL May 2018 - Aug 2018

- Researched and experimented with a new randomized thread scheduling policy in the XNU kernel to find concurrency bugs.

Facebook Menlo Park, CA
SOFTWARE ENGINEER INTERN: WHATSAPP IPHONE May 2017 - Aug 2017

- Added a new feature to notify contacts when a user changes their phone number on WhatsApp.
- Added a new feature allowing users to switch between voice and video calls.

Facebook Mountain View, CA
SOFTWARE ENGINEER INTERN: WHATSAPP VOIP May 2016 - Aug 2016

- Improved reliability and deployment speed for WhatsApp's VoIP relay server, reducing upgrade times by 99%.

University of Texas at Austin Austin, TX
UNDERGRADUATE RESEARCHER Aug 2017 - Aug 2019

- Soujanya Ponnappalli, Aashaka Shah, Amy Tai, **Souvik Banerjee**, Vijay Chidambaram, Dahlia Malkhi, Michael Wei. "Scalable and Efficient Data Authentication for Decentralized Systems." arXiv:1909.11590.

University of Texas at Austin Austin, TX
TEACHING ASSISTANT Aug 2016 - Dec 2017

- Taught CS 439H Operating Systems Honors, CS 429H Computer Architecture Honors, CS 311 Discrete Mathematics.

Education

University of Texas at Austin GPA: 3.98
B.S. COMPUTER SCIENCE HONORS, MATHEMATICS May 2019

- **Turing Scholar, Distinguished College Scholar, University Honors**

Colleyville Heritage High School
VALEDICTORIAN, NATIONAL MERIT SCHOLAR May 2015

Skills & Coursework

Languages & Frameworks C, C++, Swift, Rust, Python, Objective C, Java, JavaScript, React, ARM assembly, x86 assembly
CS Courses Computer Graphics, Artificial Intelligence, Computer Vision, Algorithms, Operating Systems, Programming Languages, Computer Architecture, Data Structures