Dean Menezes

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Education

University of California Los Angeles   **Los Angeles, CA**

Ph.D. in Mathematics, GPA: 3.99
- **Passed Qualifying Exams in:** Algebra, Logic, and Analysis
- **Graduate Summer Schools in:** Combinatorics, Logic, Set Theory, Number Theory, Topology

The University of Texas at Austin   **Austin, TX**

B.S. Mathematics, B.A. Plan II Honors, Highest Honors, Special Honors in Mathematics, GPA: 3.98   *Graduated*
- **Undergraduate Thesis:** Cartesian Closed Categories and Typed Lambda Calculus
- **Budapest Semesters in Mathematics (Fall 2014):** High Honors
- **UCLA Logic Summer School (Summer 2014):** Graduate-level classes in Forcing and Descriptive Set Theory taught over 3 weeks

Mary Carroll High School   **Class of 2012**

Valedictorian (Highest Ranking Graduate)

Experience

Fortanix   **Remote**

Software Engineer   *2022-Present*
- Worked on cryptography and cybersecurity software based on Intel SGX Technology.
- Implemented frontend and backend software for key management and processing of machine learning datasets using C++ and Rust.
- Drove design and implementation of AWS Nitro Enclave File Persistence feature for Confidential Computing Manager (CCM) product, enabling ephemeral Nitro enclaves to have secure encrypted file persistence between instances, a feature standard Nitro enclaves are not capable of.
- Developed SQL query and join logic library components for Data Execution Engine, allowing both integration testing and production executables to process customer databases.
- Engaged in product improvement of Confidential AI (CAI) system and backend, based on containerized Python AI programs operated in SGX enclaves.

Google   **Remote**

Software Engineer Intern   *2022*
- Worked on developing software related to search testing and infrastructure for derived intent generation.

Intern: Snowflake SQL team   **Location**

SQL Intern   *June-Dec 2021*
- Worked on adding rules to the SQL compiler, such as pushdown of filters and JOIN elimination.
- Contributed to cardinality estimation, estimating the size of various sets involved in SQL queries for query planning.

Teaching Assistant at UCLA   **Los Angeles, CA**

Teaching Assistant
- Assisted with Linear Algebra and Discrete Programming courses.

Grader, Mathematics Department UT Austin   **Austin, TX**

Grader
- Worked as a grader in the Mathematics Department.

Learning Assistant – Mathematics Department UT Austin   **Austin, TX**

Learning Assistant
- Served as a Learning Assistant in the Mathematics Department.

Technical Skills

Languages: C, C++, Python, Java, Scheme, Mathematica, MATLAB, SQL, JavaScript, OCaml, Go, Haskell, Rust, FORTRAN, HTML, CSS
Developer Tools: Linux / Unix, WireShark, IntelliJ, Emacs, JIRA, Jenkins, ANTLR, flex/yacc, Docker
Technologies/Frameworks: Python (numpy, pandas, scipy, scikit-learn, FastAPI, BeautifulSoup, pymongo, matplotlib, seaborn), Ruby on Rails, Django, React,