

Sid Gupta

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EDUCATION

University of Toronto · B.Sc

Sept. 2017 – May 2022

Computer Science & Math · In-major GPA: 3.5 (A-)

Coursework: Machine Learning · Probability Theory · Algorithms & Data Structures
Operating Systems · Computer Security · Computer Vision

EXPERIENCE

Apple

Jan 2020 - Apr 2020

Software Engineering Intern Typescript · GraphQL · Node · PostgreSQL · React

Cupertino, CA

- Built a ticketing API service that reads errors from hardware devices, and assigns tasks to internal engineers
- Implemented a ‘ticket search’ feature with GraphQL query and mutation endpoints; enabling a client to query for tickets by attributes such as device code, unit #, build version, etc.
- Connected ticket generating sources to use this API, and built a React frontend to display search results

Intel

May 2019 - Dec 2019

Software Engineering Intern C++ · C · Make · Bash · FPGAs

San Jose, CA

- Built a C++ model that can track the speed of a hardware chip (i.e, number of clock cycles for completion)
- Successfully integrated this software model onto hardware, after reading the technical chip design, and modifying Makefiles in a codebase compilation with 15K+ lines

Knowtworthy

Nov 2017 - Present

Co-creator and Full-stack developer React · Redux · Node · MongoDB · UX/UI

Toronto, ON

- Engineered the full-stack of a meetings productivity tool from scratch, with laying out new ideas, building web-pages & servers, and testing features with over 150 real users to optimize UX/UI
- Designed feature-rich web pages in React/Redux for a docs system, and an interactive ‘meetings’ page
- Wrote and tested back-end server endpoints in Node that interact with a MongoDB database

RESEARCH & TEACHING

Stochastic Completion Fields Python · NumPy · OpenCV · ScikitSDK

- Implemented and improved a computer vision paper that recovers missing edges in a contour drawing
- Recreated missing edges by running a brute-force Monte Carlo simulation of random walks, and choosing the edge with highest probability
- Vectorized code using NumPy and linear algebra to boost performance in the paper from $\mathcal{O}(m^3n^4)$ to $\mathcal{O}(mn)$; improving practical runtime from 2 hours to 40 seconds

Smart Voice Python · NumPy · Django · ScikitSDK · AndroidSDK

- Led the full development of an app for clinical researchers, that securely collects speech data, and uses NumPy to mathematically extract features from the voice signal (fundamental frequency, jitter, etc)

Teaching Assistant: University of Toronto

- TA for CSC165 & CSC110 (Mathematics for Computer Science; Foundations of Computer Science)
- Led tutorials; managed an online course forum for 700+ students; graded course assignments & exams

AWARDS AND RECOGNITION

- Built Knowtworthy at a UofT start-up accelerator; placed against the top 14 teams in the annual “Demo Day” competition, and won 2nd place, winning \$10,000 in company funding
- Nominated for UofT’s “Best CS TA” award after receiving outstanding recognition from the students
- Recognized for 100+ volunteer hours helping food banks & community centres in California

SKILLS

- **Languages:** C · C++ · Java · Python · JavaScript · TypeScript · SQL
- **Technologies:** React · Redux · GraphQL · Node · NumPy · Android SDK · MongoDB