Arjun Mittal

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Experience

Apple | Software Engineer   October 2021 – Present
Input Systems Experience (Swift, Python, C++)   *Cupertino, California*

- Architected and developed the foundational library integrating OpenAI capabilities into the Apple ecosystem, powering key features in Siri and Writing Tools
- Developed inline text predictions across all Apple keyboards by integrating predictive model outputs, delivering a faster and more intelligent typing experience
- Improved p95 latency of autocorrection candidate generation on multilingual keyboards by 30% by profiling, refactoring, and parallelizing per-locale computations
- Partnered with modeling teams to productize transformer language models, enabling seamless autocorrection across Apple keyboards

Wealthsimple | Software Engineering Intern   May 2021 – August 2021
Growth & Data (Python)   *Toronto, Canada*

- Optimized the friend recommendation system by cleaning contact data and improving ranking performance to support real time updates
- Integrated Reddit ads API into our ad spend pipeline using Python, Airflow, and DBT automating campaign performance ingestion for unified dashboard reporting

RBC Capital Markets | Quantitative Trading Analyst   May 2019 – August 2020
ETF Market Making (Python, KDB)   *Toronto, Canada*

- Developed trading application interface using React & Java, allowing concurrent traders to make real-time system updates and manage the execution of over 60% of all Canadian ETFs
- Led the research and development of a factor-based ETF pricing validation tool mitigating erroneously priced orders, leading to annual savings of a 5-figure amount
- Devised a strategy to manage book risk during periods of high market volatility, reducing costs by a 6-figure amount annually
- Reduced run time of scripts by 80%, improving availability of decision critical reports through vectorizing query operations and migrating codebase to use the native database language

Scotiabank | Software Engineering Intern   May 2018 – August 2018
Payments (Java, Python)   *Toronto, Canada*

- Collaborated on ScotiaConnect, a digital banking platform, creating an automated end-to-end secure file transfer management system, supporting transactions valued at more than $3 billion as of 2018
- Architected real-time dashboard on Google Cloud to help senior executives monitor customer KPIs

Technical Skills

Languages | C++ • Swift • Python • Objective-C • C • SQL • KDB

Education

University of Toronto   2021
Bachelor of Applied Science & Engineering, Computer Engineering   *Toronto, Canada*
Coursework - Machine Learning, Algorithms & Data Structures, Operating/Distributed Systems, Computer Networks

Projects

CockroachDB – Open-Source | *Go, C++*   2021
Contributed to CockroachDB, a distributed SQL database, expanding its geospatial capabilities with new functions

Facebook Libra – Smart Contract Verification | *Go, React, JavaScript, AWS, Docker*   2021
Engineered a system for the automatic verification and synthesis of Facebook's Libra smart-contracts