Kaiyuan Yang *Computer Science at UBC, formerly at Coinbase and Salesforce, 6-time TA*

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EDUCATION

University of British Columbia   Vancouver, BC
Bachelor of Science with Distinction, Coop, Major in Computer Science   *September 2018 – May 2023*
- GPA: 90.8% (4.33/4.33)
- Awards: Faculty of Science International Student Scholarship (x2), Trek Excellence Award, Charles and Jane Banks Scholarship (x2)

WORK EXPERIENCE

Software Engineer   **Fortinet**
June 2023 – Present   *Burnaby, BC*
- Utilized **IPCs** and **Linux system calls** for feature Development and maintenance on FortiOS.
- Created lightweight command line utilities for system management and diagnose.
- Implemented JSON format in FortiOS for central logging daemon.
- Integrated **Python** script into FortiProxy autotest **TCL** framework for leak detection.

Software Engineer Intern   **Coinbase Inc.**
May 2022 – Sept 2022   *Remote*
- Redesigned the backend data model in **MongoDB** and api using **protobuf** and **grpc** to support payroll direct deposit with multi-cryptocurrencies.
- Migrated the **CRUD** operations from **Ruby on rails** to **Golang** monorepo, including service api extension, graphQL endpoint redirect and data migration
- Implemented both the backend and frontend business logic on two incentive activation emails for direct deposit account registration, driving up MTU by **10%**.
- Designed and Enhanced Monitoring and alerting **metrics** in DataDog for tracking the direct deposit payment service health.

Software Engineer Intern   **Salesforce**
Jan 2022 – April 2022   *Vancouver, BC*
- Implemented Row Limit Filter and Integrated with other filterings in Frontend using **React** and **CoffeeScript**.
- Refactored and Implement **Java** backend API which improves the filtering speed by **30%**
- Devised frontend test suite with unit and snapshot tests, improving code coverage from **70%** to **90%**.

Software Engineer Intern   **BGC Engineering Inc.**
May 2021 – Dec 2021   *Vancouver, BC*
- Implemented the 'sketch & save' feature on the Cambio™ map using the ArcGIS API and **TypeScript React**, a critical tool for site workers.
- Developed a data parser to convert MySQL DB Geometry to Esri Geometry, reducing data size by **50%**.
- Automated the SQL database injection process with a script, boosting efficiency by **30%**.
- Refactored the backend identify Tool Service in **c#** to support customized template while reducing the payload size by **50%**.

SELECTED PROJECTS

- **Reliable BitTorrent**   Go
  - Developed and implemented a customized BitTorrent client and tracker server in Golang, optimizing resource allocation for improved performance.
  - Designed comprehensive functional and validation tests to demonstrate proof of concept and ensure robustness.

- **MiniRacket Compiler**   Racket
  - Developed a compiler for a subset of Racket to machine language (x86-64 CPU instruction set with Linux system calls). This includes the phase of intermediate representation, code generation and optimization.
  - Wrote Robust Unit tests for each compiling pass.

SKILLS

- **Languages:** C/C++, Java, Golang, Rust, Python, GrahpQL, Typescript, Bash, SQL, Tcl, Racket
- **Technologies:** React, Node, Git, Docker, REST, Datadog, Snowflake, Protobuf, gRPC, MySQL, Vim