MARK LIN

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EDUCATION

University of Waterloo **Sept 2020 – Apr 2025**
Bachelor of Mathematics – Statistics & Decision Theory *Waterloo, ON*

Relevant Coursework: Introduction to Combinatorics, Calculus 3, Linear Algebra 2, Mathematical Statistics, Stochastic Processes, Applied Linear Models, Management Information Systems

National University of Singapore **Aug 2023 – Dec 2023**
Student International Exchange – School of Computing *Singapore*

Relevant Coursework: Software Engineering & Object-Oriented Programming, Computer Organisation, Data Structures and Algorithms

EXPERIENCE

Software Engineer Intern @ Cover **May – Aug 2023**
Python, Flask, Firebase, AWS, PostgreSQL, Docker, C#, ASP.NET, Microsoft Azure, EF Core, Vue.js *Los Angeles, CA*

- Designed and implemented a set of algorithms that efficiently generate component layers for Cover housing designs.
- Spearheaded the launch of **Cover S** which increased sales, and reduced production and manufacturing costs.
- Developed our internal ERP system using **C#** and **ASP.NET** and architected the back-end web infrastructure using Microsoft's **EF Core** with **PostgreSQL** to support our manufacturing and supply chain engineers.
- Streamlined the onboarding process for potential clients by remodeling our property assessment procedure and improving the performance of our internal property zoning tool using Python's **multiprocessing**.

Software Engineer Intern @ Drop Technologies Inc. **Sept – Dec 2022**
Ruby on Rails, AWS, Docker, Kubernetes, XCode, Redis, React Native *Toronto, ON*

- Took ownership and led the team to complete a major upsell project increasing shop engagement by **10%**.
- Leveraged consumer data to implement custom alerts tailored to individual shoppers based on recent shopping history.
- Designed, developed and tested an end-to-end algorithm that determined when and which alerts to display to shoppers.
- Improved performance of the app by 5% by identifying and fixing **N+1 queries** in our internal API.

Software Engineer Intern @ TD Securities **Jan – Aug 2022**
Scala, Python, Akka, Node.js, SQL, React.js, Angular.js *Toronto, ON*

- Developed global development resources for front office trading desks in NYC, London, Singapore and Toronto.
- Worked on our flagship application dedicated to intra-day real-time management of **Fixed Income** and **FX risk**.
- Improved performance of trading servers by writing **Python** scripts which helped discover and solve server lag issues.
- Created a complex risk trade curve editor using **React.js** and developed our internal **RESTful API**.
- Led weekly social meetings as a committee leader with **20+** attendees for international co-ops and associates.

PROJECTS

Wellify | *Firebase, React.js, Typescript, Vercel, Stripe, Zoom* *well.cards*
- A platform for wellness instructors to monetize and host their classes during the pandemic.

Virtual Miner | *Solidity, web3.js, Node.js, Truffle Suite* *Virtual Miner*
- A decentralized application where users can pool their ether to earn the chance of increasing profits.

NoteWarrior | *React.js, Next.js, MongoDB, Express.js, Vercel* *NoteWarrior*
- Website for buying and selling notes among University of Waterloo students using the MERN stack.

Portfolio Website | *React.js, JQuery* *mark-lin.ca*
- A simple portfolio website to highlight my skills and accomplishments.

TECHNICAL SKILLS AND INTERESTS

Languages: Python, Java, C/C#/C++, Scala, Ruby, HTML/CSS, JavaScript/Typescript, SQL, GraphQL, Racket, R
Interests: Chess, Rock Climbing, Hiking, SSBU, League of Legends