# **SOHAM SHAH**

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### **EDUCATION**

University of Waterloo

Waterloo, ON

Bachelor of Honours Computer Science (Software Engineering Specialization), Minor in Economics Relevant Coursework: Data Structures, Algorithms, Databases, Object Oriented Programming

Sept 2020 – Apr 2025 (Expected)

GPA: 3.7/4.0

#### **TECHNICAL SKILLS**

**Languages**: Python, Kotlin, Javascript, C++, C, C#, Typescript, SQL, HTML, CSS, R **Frameworks/Libraries**: React, Node.js, Vue.js, Express, Flask, Pandas, NumPy, Gradle

Tools/Technologies: AWS, Docker, MongoDB, MySQL, SQLite, Git, Linux, Postman, Gitlab, Github, Bitbucket, Jira

**EXPERIENCE** 

CPP Investments Sept 2023 - Dec 2023

Incoming Software Engineer Intern

Toronto, ON

Engineering innovative technical solutions using Python & AWS to enable advanced investment risk assessment capabilities

Wealthsimple May 2023 - Aug 2023

Software Engineer Intern

Toronto, ON

- Designed a Slackbot that alerts teams of upcoming deadlines, increasing timely completion of vulnerability tickets by 22%
- Integrated a dynamic application security testing (DAST) framework into production environment using ECS and CloudWatch to run nightly vulnerability scans on digital assets, increasing attack surface test coverage by 50%
- Achieved a security posture rating of 96% by collaborating with engineering teams to successfully remediate 79 vulnerabilities
- Leveraged LLM's to automatically generate attack narratives for vulnerabilities, enabling more comprehensive threat modeling

Oliver Wyman May 2022 - Aug 2022

Software Engineer Intern

Toronto, ON

- Developed functionality for life insurers to auto generate financial reporting documentation by implementing a stack-based architecture in C#, resulting in a 65% reduction in manual documentation time
- Re-engineered OW iReplicate by creating logic that scales down linear programs to optimize them and applied a new MIP solver, improving data compression success rate by 12%
- Reduced 18% of manual testing load by using Python scripts to generate 30+ large scale linear programs (LP), solve each LP through various MIP solvers and summarize results in Excel
- Implemented an admin dashboard via Vue and TypeScript to manage client permission and license agreements hosted in S3

Deloitte, Consulting Sept 2021 - Dec 2021

Software Engineer Intern

Toronto, ON

- Led a team of 4 to engineer Canada's first all-inclusive insurance analytics solution POC by using React and NodeJS, expected to win client partnerships worth over \$2 million
- Streamlined data consolidation processes by designing data pipelines and writing ETL jobs increasing clean data availability by 10% and enabling various business use cases
- Increased user interactions by 34% using A/B testing data to analyze user behaviour through predictive models in SageMaker
- Re-provisioned existing cloud infrastructure for insurance solutions using AWS tools like EC2 Instances, S3, Elastic Beanstalk,
  Codepiplines, and Lambda, reducing cloud costs by 7%

## **PROJECTS**

**Rewind** (7) (1) | React, NodeJs, Express, MongoDB, Material-UI, Redux, Axios

- Created a web based personal memory sharing platform using MERN stack to support 7+ CRUD functionalities
- Utilized MaterialUI to create a responsive UI, and integrated Axios to make client-side requests and transform response data
- Built a RESTful API using Node to communicate with a MongoDB Cluster to facilitate storage and modification of post data

**EasyNotes** | Kotlin, JavaFX, Spring Boot, AWS, Docker, MySQL, JUnit

- Developed a desktop notes application to support rich text editing, audio notes, notes grouping and favouriting capabilities
- Leveraged Spring Boot to design backend and establish secure connection with MySQL database for efficient data retrieval
- Containerized backend using Docker and hosted it on an EC2 instance to allow users to sync their notes across devices

## **CERTIFICATIONS**