

# Sohan Chowdhury

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## SKILLS

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**Languages:** JavaScript, Python, PHP, Typescript, Java, SQL  
**Backend:** Express, Laravel, Flask, FastAPI, NodeJS, Redis, Postgres, RabbitMQ  
**Frontend:** React JS, HTML, CSS (+ Sass), Material UI, Bootstrap  
**Miscellaneous:** Docker, REST, Git, AWS, Agile, SCRUM, TDD

## EXPERIENCE

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**Graduate Teaching & Research Assistant** Sept. 2021 – Present  
*The University of British Columbia*

- Developed VR hand-tracking applications (C#, Python, Unity) resulting in 2 top conference publications.
- Taught labs in Web Programming (HTML, CSS, JS, PHP, MYSQL) and HCI (JAVA, Android).

**Software Engineer** Dec. 2019 – Aug. 2021  
*Digital Health Division, Grameen Telecom Trust*

- Reduced customer wait-time significantly (10x faster) over the legacy system by developing a Pub-Sub reward points microservice aggregating user activities from 5 different applications (Python, FastApi, RabbitMQ, REST API).
- Ensured on-time and successful delivery of 3 external b2b projects by leading a team of 3 devs from planning to finished product (Laravel (PHP), Flask (Python), React (JS), PostgreSQL, Redis).
- Reduced human labeling costs by 10% by building a customized labeling dashboard (React, Express) and the data-pipeline (Python) for the ML receipt recognition system.
- Improved customer insights data by building a context-aware survey system (React, Express, PostgreSQL)
- Reduced release delays by 2-3 weeks on numerous features by identifying key external blockers and resolving blockers early through proactive collaboration.

**Associate Software Engineer** Oct. 2018 – Nov. 2019  
*Digital Health Division, Grameen Telecom Trust*

- Achieved 2-3x performance improvements on legacy REST APIs (PHP, Laravel, NodeJS, Express) by using caching, queuing, pub-sub, and SQL optimization on business-critical digital-health backends handling 5 million+ users.
- Took ownership, maintained and documented core monolith rest API with complex undocumented business logic.

**Software Developer - Part Time** Dec. 2016 – Sep. 2018  
*Access To Information, Prime Ministers Office*

- Developed a geo-fencing based fraud prevention system reducing manual interventions by 70%.
- Created web replacements for paper processes resulting in significant boosts to organizational productivity.

## EDUCATION

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**University of British Columbia** Sep. 2021 – Apr. 2023  
*MSc in Computer Science — 4.33/4.33 — Fully Funded* BC, Canada

**American International University - Bangladesh** Mar. 2015 – Sep. 2018  
*BSc in Computer Science & Software Engineering — 3.95/4.0* Dhaka, Bangladesh

## PROJECTS

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**Lipi, Static Blog Generator GUI** <https://github.com/SohanChy/Lipi> — 120+ Stars Aug. 2017 - Jul. 2018

- Open source Java based GUI for WYSIWYG static blog generation based on emhugo.

### Undergrad NLP & Vision Projects

- Object Relationship Recognition - Combined SOTA object segmentation and Bag-of-words model to detect relationship between objects in an image.
- Bangla Summarizer - Unicode implementation of TextRank and Lexrank in NLP in PHP with web-crawling.

## ACHIEVEMENTS & HOBBIES

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- As team lead, won 2nd position in a national-level and 3rd position in a inter-University hackathon
- Multiple academic excellence awards including Summa Cum Laude, Vice-Chancellors & Dean's List Awards
- Hobbies include hiking, backpacking, camping, single-player video games, and landscape-photography