Cathy Le

3A Biomedical Engineering

647 - 459 - 8558
c29le@uwaterloo.ca
linkedin.com/in/le-cathy
github.com/lecathy
lecathy.github.io/website

Skills: React, Django, Angular, Spring, MySQL, MongoDB, Node.js, Git, Mockito, Linux
Languages: Python, Java, Java/Typescript, Kotlin, Swift, HTML / CSS, C ++

WORK EXPERIENCE

Software Developer | Cyclica — September — December 2020

- Created new features from end to end for a drug development platform by building functional **React** components and leveraging **Django** to develop **RESTful API's** and **PostgreSQL** query expressions
- Built a major feature that allows users to analyze the abundance of 30 000+ proteins in major organs, tissues and cells by implementing a dynamically colour coded anatomical diagram and graph
- Optimized performance of protein details API by 30% through refactoring database queries
- Designed UI and created vector graphics for protein detail pages centered around user needs of applied scientists

Software Engineer | PointClickCare — January 2020 — May 2020

- Implemented and tested backend of nutrition management and core web application used by hundreds of hospitals
- Developed audit framework and instrumented logging events using **RESTful API's, jQuery, Spring** and **Mockito** to increase logging coverage by 12%
- Reduced team regression period by 5 days by developing page objects and end to end tests with **TestNG** and **Selenium**

Full Stack Developer | Royal Bank of Canada — May — August 2019

- Created 30% of UI features on an internal web application used by hundreds of mortgage specialists according to strict design specifications and added dynamic functionality to widgets with **Angular, Kotlin** and **Swift**
- Using **Spring**, developed API's, wrote and retrieved all user preferences with **MongoDB** and implemented business logic
- Presented new features and project updates to over 100 stakeholders biweekly

PROJECTS

Research Assistant | Engineering and Optometry/Vision Science Lab — September 2019 — Present

- Wrote a publication for SPIE Optics+Photonics journal (spie.org/Publications/Proceedings/Paper/10.1117/12.2566771)
- Created a psychophysics eye experiment software to be used in a clinical trial by the Singapore Eye Research Institute to predict early stage glaucoma in patients by measuring hyperacuity
- With **PsychoPy/Python**, developed an algorithm using the adaptive staircase procedure, adjusting the next test stimulus according to past responses and write the raw data in a comprehensible format for the experiment observer

Mediband | Chaos Engineering Champion Award @ Brick Hack 6 — February 2020

- Created a bracelet for patients at risk of a medical emergency to be scanned by paramedics and first responders to view and access crucial medical information (https://devpost.com/software/mediband)
- Embedded an **NFC card** in a bracelet which can be tapped to display patient's medical history, allergies, medications and other vital information on the users device
- Implemented the entire **Angular** web application UI and **MongoDB Atlas** integration

EDUCATION

University of Waterloo — Sept 2018— May 2023 (Expected)

Candidate for BASc (Biomedical Engineering) with an Option in Computer Science | CGPA 88.44 (3.81)

- **Relevant Courses**: Software Design and Architecture, Data Structures & Algorithms, Image Processing, Linear Algebra