

Philips Xu

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SKILLS

Languages TypeScript, JavaScript, Python, Dart, HTML, CSS, Java, C++, C, SQL
Technologies React, Node.js, Express, MongoDB, GraphQL, React Native, Flutter, Android Studio, AWS, Git

EXPERIENCE

Software Engineer Intern @ Wish | Marketplace & Logistics Sep 2021 – Dec 2021

Software Developer @ UW Blueprint | Pregnancy Centre Project May 2021 – Aug 2021

- Collaborated with a team of students to develop and launch a donation platform for a pregnancy resource centre
- Streamlined admin experience by building key features and **React** components using **TypeScript** & **Apollo Client**
- Designed and implemented **MongoDB** schemas and **GraphQL** resolvers using **Mongoose**, **Node.js** & **Apollo Server**

Software Developer Intern @ Dagamma Inc. Jan 2021 – Apr 2021

- Developed and launched a **React Native** mobile application on **Android** & **iOS**, acquiring **2000+** users on release
- Served over **6000+** mobile fetal heart sound recordings by implementing audio recording UI component using native **Android** & **iOS** APIs, along with a **JavaScript** module interface for cross-platform compatibility
- Eliminated over **90%** of functional & visual bugs and improved app maintainability by refactoring verbose logic across **30+ React Native** components & re-architecting client state management using **Redux**
- Spearheaded the development of a remote patient-monitoring web platform by identifying technical requirements and building the entire frontend using **Next.js**, **Redux** & **TypeScript**
- Streamlined backend code deployment process by implementing **CI/CD** pipeline using GitHub Actions and configured self-hosted runners using AWS **EC2** instances to customize job-running environment

PROJECTS

Gitalk  | Hack the North 2020++ Jan 2021

Express, Node.js, JavaScript, React, VoiceFlow, CockroachDB, Heroku


- Utilized **Voiceflow** to build a voice application that automates Git actions through authenticated verbal commands
- Engineered custom authentication system using **Express**, **Octokit**, & **Sendgrid API**, enabling secure email delivery and user-friendly verbal GitHub authentication
- Designed the database schema using the **Sequelize ORM** & configured the **CockroachDB** cloud cluster

Foodprint  | Personal Project Mar 2020

Flutter, Dart, Express, TypeScript, Heroku, PostgreSQL, AWS S3

- Built and designed a cross-platform **Flutter** mobile application with **Dart** for personal food journaling
- Implemented backend **Express REST API** and **JWT** authentication service from scratch using **TypeScript**, featuring custom token verification and refresh token generation + revocation logic
- Designed the relational **PostgreSQL** database schema and persisted user photos using AWS **S3**
- Architected the app using the **MVC** pattern to optimize for maintainability by decoupling business logic & UI
- Applied **Domain-Driven Design** practices by implementing self-validating data objects, abstracting data access logic using the **Repository** pattern, and utilizing **dependency injection** to eliminate concrete dependencies

EDUCATION

University of Waterloo  Sep 2019 – Apr 2024 (Expected)

Bachelor of Computer Science, 3A Term

- Courses: Object-Oriented Programming (Enriched), Data Structures and Data Management