

Peter D’Pong

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Skills

Languages: C++, C, JavaScript, TypeScript, Kotlin, Dart, ARM Assembly, Verilog

Frameworks: React, Redux, Electron, Android, Flutter, Firebase, GTK, Node.js, Express.js

Work Experience

Prodigy Education, Game Developer Intern (Game Tools)

May 2021 – Aug. 2021

TypeScript, Electron, React, Redux

- Designed a prefab dependency graph helping developers visualize the relationships between prefabs and determine impacts of changes to prefabs.
- Developed a system to correctly parse and resolve game object’s signals/events when instantiated from templates reducing the need for manual resolving.
- Created signal visualization tool mapping out all signal connections between Game Objects and Components in a prefab.
- Implemented multi-filtering system for game objects reducing time to find a specific object based on name, components, and object references.
- Triaged and fixed bugs in game editor reducing program crashes and unresponsiveness.

Usha, Freelance Android Flutter Developer

Nov. 2020 – June 2021

Flutter, Dart, Firebase

- Implemented app design and functionality from the ground up according to Figma designs and product specifications.
- Developed backend communication and user authentication with Firebase adhering to BLoC design principles.
- Interfaced with Google and Facebook APIs to integrate Google Maps and Facebook Login in the app.
- Built various scalable and reusable app components to increase future implementation efficiency.

Projects

Mapgineer - C++, GTK

Jan. 2021 – Apr. 2021

- Implemented a greedy algorithm with simulated annealing to solve a map-based Travelling Salesman problem with added constraints resulting in solutions ranked 6th in the class.
- Created custom Trie data structure used to improve prefix name searching times by 81%.
- Designed and built user interface including Info Card system and Route Directions generation.
- Developed rendering of geographical features, buildings, and points of interests on map.

BulletTime (Hack the North Hackathon) - C++

Jan. 2021

- Built game for the Ubisoft NEST API Challenge on the HackerNest Engine in 36 Hours
- Implemented a replay system by sampling player movements and reconstruction using linear interpolation
- Utilized entity component system to create GUI entities for game menus
- Developed game state system, random map generation, and reusable wall entities

Jotally Web App – JavaScript, React, Node.js, Express.js, MongoDB

July 2020 – Aug. 2020

- Implemented a React frontend where users can add, prioritize, and view saved notes.
- Designed and developed a backend REST API to receive requests for retrieving and creating user notes and authorizing user login with JWT tokens and password hashing.
- Utilized MongoDB to save user notes and data and Mongoose to interface backend with the database.

Checked Android App – Kotlin, Jetpack, MVVM

May 2020

- Launched a native Android app allowing users to create and manage daily tasks.
- Designed and implemented a Room Database and Repository to store data locally on device.
- Followed and applied MVVM architecture isolating non-UI logic from fragment and activity classes.

Education

University of Toronto, 3rd Year Computer Engineering

2019 - Present

Bachelor of Applied Science: CGPA 3.89

Expected Graduation: May 2023