Felix McCuaig - Full Stack Software Developer

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Education

- **Camberwell Grammar School** — Student
  VCE Qualification — *Jan. 2015 - Dec. 2020*
  - English, Maths, Chemistry, Latin.
  - UMEP Melbourne Uni first year mathematics extension, Linear Algebra and Calculus 2.

- **University of Melbourne** — Student
  B.Sc, Mathematics — *Jan. 2021 - Present*
  - Currently doing an applied maths degree at UniMelb. Studying part time i.e half course load.

Work Experience

- **Energetiq (energetiq.com.au)** — Intern
  High School Work Experience — *May 2018 - June 2018*
  - Gained exposure to professional software development environment. Was able to build software development skills and contribute to frontend team.

- **EVUp (evup.com.au)** — Full Stack Developer
  Tech Lead — *Aug 2021 - Present (9 mos)*
  - Responsible for the design and implementation of EV Charging management software.
  - Responsible for turning user stories into software implementation and designing solutions to meet client needs.
  - Responsible for building OCPP network for smart electric vehicle chargers, implementing OCPI API for 3rd party and products integration.
  - Designed scalable, reliable & maintainable microservice architecture for internal software infrastructure.
  - Created and deployed GraphQL server, CI CD pipeline with cloud build, deployed microservices with cloud run, implemented Redux in react application.
  - Created and deployed an end-to-end prepayments system for EV charging.
  - Designed and implemented custom API integrations between internal APIs and popular enterprise software such as Xero, Trello, Square and Stripe.
  - Created software infrastructure for interacting with and managing IOT devices.
  - Setup monorepo and project code sharing.
  - Implemented data access layer abstraction to cache frequently accessed resources and improve load times.

Passion Projects / Open Source Contributions

- **ShareShop App**

  github.com/felixlucien/flutter-autocomplete-textfield *Sep. 2018*
  - An app that allowed people to collaborate on shopping lists, an individual would create a "family" where many people could all add to, modify and delete a synchronized shopping list. Using firebase and google cloud services cloud computing. The app would also use machine learning and OCR to scan shopping lists and it would recommend recipes that could be made using ingredients from the shopping list. Front end written in Flutter.

- **IOT ESP8266 firmware rewrite**

  github.com/felixlucien/esp-link *Sep. 2019*
  - Reprogrammed an off the shelf wireless IOT device to route wireless traffic into an ethernet gateway. Note this project included circuits and hardware augmentation.

- **Flutter AutoComleteTextField**

  github.com/felixlucien/flutter-autocomplete-textfield *Oct. 2019*
  - Created a Flutter UI component which had not been made at that time. An autocomplete-texfield (like the suggestion finder you use when typing into Google search).
  - Published to the open source community on pub.dev and the project is now used worldwide in Flutter projects.

Skills

Languages / Paradigms:

JavaScript, TypeScript, Python, Java, Monorepo, OOP, Function Programming Practices, Microservice Architecture, R.

Technologies And Frameworks:

React, Redux, NodeJS, Docker, GraphQL (Apollo), NoSQL Database (Mongo, Firestore), Rest APIs (Express), Realtime Websocket Communication.

Interests:

The design and operation of commercial software at scale.

The architecture of complex software.

Data Science, ML.

Distributed Systems.