

# Oktarian Tilney-Bassett

Website: [oktarian.com](http://oktarian.com)

GitHub: OktarianTB

LinkedIn: Oktarian-TB

## Education

---

### Hong Kong University of Science and Technology

Sept 2019 – May 2023

- Bachelor of Engineering in **Computer Science** (*Program Ranked #17 Worldwide*)
- **Coursework:** Algorithms and Data Structures, OOP, Software Engineering, Operating Systems
- **CGA:** 3.73/4.3 (on track for First-Class Honors)

## Skills

---

**Languages:** JavaScript, Python, C#, C++, SQL

**Databases:** PostgreSQL, MongoDB

**Web:** ReactJS, NodeJS, HTML, CSS

**Other:** Version Control (Git, GitHub), Docker

## Experience

---

### Gearset | *CI Deployment Pipelines Team*

June – August 2021

Software Engineering Intern

Full Time / Cambridge, UK

- Implemented features, improvements and bug fixes related to continuous integration deployment pipelines
- Developed high impact features on both the frontend and backend such as a new wizard for creating CI jobs and webhook management, whilst maintaining high standards of code and testing coverage
- Created an internal dashboard to display a range of useful metrics for monitoring pipelines activity
- Collaborated with the team on design discussions and participated in version control activities

### University Campus Map | *Full Stack Team*

October 2020 – June 2021

Software Engineering Intern

Part Time / Remote

- Responsible for a group of 3 students working on frontend and backend features and improvements
- Completed a re-design of the mobile website UI and integrated new pathfinding and localization features
- Worked cross-platforms by implementing deep links on both iOS and Android using React Native and managing redirection on the web application using ReactJS

## Projects

---

### Visitado | *GitHub Link* | *JavaScript, NodeJS, ReactJS, MongoDB*

- Created a full-stack travel social network for users to track locations visited, earn badges and share posts
- Implemented a dynamic frontend, a RESTful API backend, authentication and database management

### Flight Simulator | *GitHub Link* | *C#, Multi-Threading, Unity Engine*

- Developed a chunk-based procedurally generated 3D world with biomes to be explored by plane
- Leveraged multi-threading and mesh colliders optimizations to enable smooth generation

### Raytracer | *GitHub Link* | *C++*

- Created a program to construct ray-traced images of scenes recursively with refraction and reflection
- Implemented advanced algorithms for texture mapping, complex geometry intersection, lighting

### Game Jams | *Portfolio Link* | *C#, Unity Engine*

- Created games within a few days for Global Game Jam, GMTK, Ludum Dare and others