

# Daniel Lambert

[danbudcs@gmail.com](mailto:danbudcs@gmail.com) | +447472676011 | [LinkedIn](#) | [Github](#)

## Education:

---

### University of York

February 2024

Msc Computer Science – 2:1 (3.8 GPA)

Relevant Coursework: Algorithms & Data Structures, Computer Architecture & Operating Systems, Advanced Programming, Computer & Mobile Networks, Artificial Intelligence & Machine Learning, Software Engineering

## Experience:

---

### Balyasny Asset Management

June - August 2023

Software Engineer Intern

- Leveraged Python to generate market data information on 750+ future contract expirations and future spreads.
- Generated 25,000+ lines of CSV output containing future contract information across 5 stock exchanges.
- Reduced program execution time by 70% by caching exchange trading holidays through a single API call.
- Accomplished adding 50+ future contract ruleset exceptions encoded in JSON format for unified and faster filtering.
- Collaborated with another team in scaling the coverage of exchange venues to capture additional future contracts and options using C++ and Python.

### Popdot

May - October 2022

Software Engineer Intern

- Created API endpoints using Django for efficient user account creation and retrieving key user details.
- Designed a JSON validation script using Python to find duplicate login credentials for preventing multiple user accounts, reducing sign-up errors by 35%.
- Improved Swagger documentation for internal APIs, leading to a reduction of 25% in developer search time.
- Collaborated with the data management team to improve error response codes for detecting application bugs.

### CodingForKids

September 2021 - April 2022

Computer Science Tutor

- Created a computer science curriculum for students interested in science and technology, resulting in 96% of students being interested in pursuing a career in STEM.
- Designed a series of lectures and programming workshops to teach object-oriented programming in Java.

## Projects:

---

### Stock Exchange Trading Bot | C++, Python, Dash

- Developed an automated stock exchange and cryptocurrency trading bot to track user-selected securities and implement algorithms for comparing the results of each strategy.
- Created a dashboard to track the real-time fluctuations of trading positions within the portfolio.
- Generated a recommendation system to compare current trades and find securities that have the potential to trade.
- Backtested used-inputted and generic trading strategies using market data from selected stocks and cryptocurrencies.

### OCaml Compiler | OCaml

- Created a custom compiler using the OCaml programming language, through developing a lexer and parser ensuring that accurate tokenization and correctness of the code is maintained.
- Constructed an optimized Abstract Syntax Tree representation for improved semantic analysis and code generation.

### Real Time Object Detection | Python, OpenCV, Tkinter

- Developed a real-time object detection system leveraging OpenCV to achieve 96% accuracy in detecting humans through facial recognition, and a strong performance in detecting types of inanimate objects.
- Optimized object detection through utilizing Histogram of Oriented Gradients for improved feature detection.
- Created a user interface to select detection system options and check recordings of saved historical detections.

### Aggregated News Search Engine | Java, Firebase

- Designed an Android application to aggregate news articles into short-form content, reducing the length of articles on average by 60%, while retaining the key important facts of the articles.
- Generated weekly personal recommendations by producing aggregated articles covering selected user interests.

## Technical Skills:

---

Languages: Python, C++, Java, OCaml

Tools & Frameworks: Git, SQL, Linux, Hadoop, GraphQL, MongoDB, Docker, AWS