# **ALBERT BOEHM**

### **EDUCATION BSc Computing Science**

Expected 06/21

University of Aberdeen, UK

- Overall GPA: 3.96
- Awards: BCS Prize for Best Level 2 Computing Science Student, CGI Prize for Best Level 3 Computing Science Student
- Teaching Assistant: Algorithmic Problem Solving
- Relevant Coursework: Distributed Systems, Linear Algebra I/II, Operating Systems, Software Engineering, Algorithmic Problem Solving, Calculus I/II, Data Management

## WORK EXPERIENCE

## **Software Engineering Intern**

06/20 - 10/20

Bloomberg, Financial Software

- Utilized Apache Kafka to develop an asynchronous messaging architecture for an order management system
- Implemented a trade notification microservice in Python
- Participated in organizational development projects
- Leveraged knowledge in Python, C/C++, Fortran, Protobuf

## **Full-Stack Engineer**

05/19 - 12/19

storytile (Startup), Media

- Enabled scalability of core product by reducing algorithm memory complexity from linear to constant
- Optimized processing of statistical data by designing a data pipeline
- Leveraged knowledge in PHP, JavaScript, Docker, PostgreSQL, git

## **Research Intern**

04/18 - 10/18

BMW Group, Automotive

- Reduced cross-component communication in Electric Motor Software Architecture Model by 47% using graphs and a genetic algorithm
- Leveraged knowledge in Python, Neo4j, NumPy, Machine Learning

#### **SKILLS**

**Proficient**: Python, C++, Java **Familiar**: JavaScript, C, PHP **Tools**: git, Docker, SQL, UNIX

**Spoken languages**: English (Full Professional Proficiency), German (Native Proficiency)

#### **PROJECTS**

## **Portfolio Backtesting Tool**

- Created a Web App to visualize and compare the historic performance of portfolios
- Calculation of key performance and risk metrics (e.g. CAGR, Sharpe/Sortino Ratio)
- Support of rebalancing strategies and regular contributions
- Utilized: Python (Flask), JavaScript, pandas, SQLite, plotly.js

### Ray Tracer

- Generates random scenes of spheres with Lambertian, metal, and dielectric surfaces
- Supports free moving camera and anti-aliasing
- Utilized: C++, Make

#### **CHIP-8 Emulator**

- Implemented an interpreter for the CHIP-8 programming language with video output
- Plays Pong, Space Invaders, Tetris, and Pac-Man
- Utilized: C++, SDL2, Make

#### Personal Website – albertboehm.com