

# ARNAV BHARGAVA

## PERSONAL PROFILE

I am a second-year Computer Science student at the University of Edinburgh on track for a 1:1 degree. I am highly analytical, self-motivated and enthusiastic learner, with knowledge in Java, C++, Haskell and Python. I have a strong focus in algorithmic design, mathematics and machine learning.

## CONTACT INFORMATION



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## AWARDS & ACHIEVEMENTS

**John Anderssons i Anderslöv Piano Stipendium** - June 2020

Awarded scholarship for solo classical piano performance by the music faculty of Lund University.

**DataFest 2020 Edinburgh** - *Winner* Judges Pick  
Analysed and visualised a dataset using R.

**Huawei Seeds for the Future Alumni**

Selected to participate in a one month long internship program offered by Huawei teaching core skills in 5G, AI, Cloud and enterprise.

**Global Challenge Lab Hackathon** - *Participant*

Invited to take part in a 10-day entrepreneurship program aimed at tackling healthcare related issues within a multicultural team.

## SELF STUDY

2021 Learn Python Programming Masterclass on Udemy

2020 Algorithms: Divide and Conquer algorithms, Randomized algorithms offered by Stanford University on Coursera in Java

2019 Python 3 Course 1: offered by Michigan State University on Coursera

2019 Mathematics for Machine learning: Linear Algebra offered by Imperial College London on Coursera

## EDUCATION

### University of Edinburgh

#### BSc(Hons) AI and Computer Science, 2020-2024

- Introduction to Computer Systems (Grade: **A2**)
- Introduction to Computation (Logic & Functional Programming) (Grade: **A1**)
- Object Oriented Programming (Grade: **A1**)
- Calculus and Its Applications (Grade: **A2**)
- Proofs and Problem Solving (Grade: **A1**)
- Several Variable Calculus and Differential Equations (Grade: **A1**)

### Katedralskolan Lund

#### Awarded 41 IB Points, 2018-2020

*HL* Mathematics, Physics, Business

*SL* Chemistry, English Lang & Lit, Swedish B

## PROFESSIONAL SKILLS

### Programming Languages

*Most experience:* Java JDK8, Python 3, C++, HTML5, Javascript, CSS

*Some experience:* Haskell GHC 8.10.2, R, CMake

### Frameworks

Android Studio, VS Code, Eclipse, Vim, Git, Bash, Linux, Windows, MS Office

### Languages

English (Native), Hindi (Native), Swedish (Fluent), Spanish (Beginner)

## PROJECTS

### Tetris in Java

- Created a custom game loop.
- Re-created the classic game *Tetris* using JavaFX played using the keyboard with levels, scoring system and an advanced GUI.

### Connect Four AI in Java

- Implemented an AI heuristic using the minimax algorithm with alpha-beta pruning for a game of Connect Four that can be played in the terminal as an extension of a coursework project.
- Gained experience in using the Model-View-Controller (MVC) design pattern in Java.

### Personal Website

- Gained experience in web development, grid based layouts and reactive websites using Flexbox and Bootstrap 5.
- Learnt HTML, CSS and Javascript

### ProjectFinder Android Application

- Entry for Hack the Burgh 7 (university's largest hackathon), aimed at students to find open-source projects to contribute to.
- Gained experience in Android SDK and XML

### Ray Tracer

- Coded in C++ with libraries to handle matrix operations, projections and vector and tuple based operations while following the tutorial in *The Ray Tracer Challenge* by *Jamie Buck*
- Developed extensive unit tests using CMake.