

ARNAV BHARGAVA

PERSONAL PROFILE

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

CONTACT INFORMATION



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PROFESSIONAL SKILLS

Programming Languages

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

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

Frameworks

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

Languages

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

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 infrastructure and its company culture.

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.

EDUCATION

University of Pennsylvania

Computer and Information Sciences, 2022 - 2023

- Selected for a highly competitive exchange program at the University of Pennsylvania for one academic year.
- Volunteering as a MathMate, tutoring mathematics at an underprivileged middle school in West Philadelphia.

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

International Baccalaureate, 2018-2020

EXPERIENCE

Junior Research Assistant - University of Edinburgh
June-July 2022

- Interned and conducted research under the supervision of Dr. Philip Wadler over the summer to better understand programming language foundations in type theory and lambda calculus.
- Gained experience in dependent types through Agda.

Marker INF1B OOP - University of Edinburgh
February-June 2022

- Gained experience providing feedback and guidance to students for the object oriented programming course.

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.

Seam Carving CLI + GUI

- Created a command line and graphical interface that shows how content-aware resizing works using C++ and GTK graphics library.

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 Jamis Buck
- Developed extensive unit tests using CMake.