

Austin Dibble

SOFTWARE ENGINEER · PHD STUDENT

Glasgow, UK

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Summary

Current PhD Student in Psychology and Neuroscience with a focus on Artificial Intelligence at the University of Glasgow. Holds an MSc in Advanced Computer Science and has over 4 years of industry experience in software and embedded systems engineering.

- PhD Student in Psychology and Neuroscience with a focus on Artificial Intelligence. University of Glasgow. Started in 2023.
- M.Sc in Advanced Computer Science with Artificial Intelligence. University of Strathclyde. Graduated with distinction in 2023.
- B.Sc. in Electrical & Computer Engineering. Oregon State University. Graduated in 2020, Summa Cum Laude.

Education

University of Glasgow

PHD STUDENT IN PSYCHOLOGY AND NEUROSCIENCE

Glasgow, UK

Sept. 2023 - Present

- **Research Focus:** Application of Artificial Intelligence in medical and neuroscience fields.

University of Strathclyde

M.Sc. ADVANCED COMPUTER SCIENCE WITH ARTIFICIAL INTELLIGENCE

Glasgow, UK

Sept. 2022 - Sept. 2023

- **Graduated:** With distinction.
- **Relevant Coursework:** Deep Learning for Visual Computing, Statistics & Bayesian Analysis, Artificial Planning.

Oregon State University

B.Sc. IN ELECTRICAL AND COMPUTER ENGINEERING

Corvallis, OR, USA

Sept. 2015 - Mar. 2020

- **Cumulative GPA:** 3.93 / 4.0 (UK 1st class equiv.).
- **Minor:** Spanish.
- **Relevant Coursework:** Machine Learning & Data Mining, Digital Image Processing, Analysis of Algorithms, Probability, Discrete Mathematics, Electronics & Digital Logic, Physics, Signal Processing.

Work Experience

Siemens Digital Industries Software

SOFTWARE ENGINEER

Wilsonville, Oregon, USA

Apr. 2020 - Sept. 2022

- Refining performance testing and improvements on Linux systems for Siemens' EDA product, improving process runtime by 40%.
- Operating within a cross-cultural and international team to coordinate bug fixes and performance improvements for customers around the world.
- Developing new UI features in a C++ environment, while utilizing the newest compiler and language features.
- Cooperating across departments to develop new features and performance improvements that meet the needs of a diverse customer base.

Semiconductor Research Corporation

UNDERGRADUATE RESEARCHER

Corvallis, Oregon, USA

Oct. 2019 - Mar. 2020

- Collaborated with postgraduate students in digital signal processing for analog to digital converters.
- Investigated novel algorithms for improving the performance of A-to-D converters when operating in noisy and non-linear environments.
- Designed MATLAB simulations to analyze the performance of digital signal processing.

IND LLC

EMBEDDED SYSTEMS ENGINEER

Vancouver, Washington, USA

Jun. 2019 - Apr. 2020

- Innovated firmware for ARM MCU to communicate and control physical processes such as temperature, humidity, pressure, and fluid flow via Internet communication.
- Managed the design and development of a new touch-screen display interface that featured an ARM Cortex-M7 processor, Bluetooth LE, Wi-Fi, and GPS.
- Coordinated with the hardware team, designing new schematics to meet customer requirements.
- Created firmware in C/C++ and an embedded GUI using uGFX.

IND LLC

SOFTWARE ENGINEERING INTERN

Vancouver, Washington, USA

Jun. - Aug. 2017, Jun. - Aug. 2018

- Pioneered a GUI in Java 8 (JavaFX) for automating on-site server organization of employee data.
- Resolved software issues and communicated solutions to customers remotely.
- Initiated development of new control hardware, using 32-bit ARM Cortex-M4 processors with an RTOS (real-time operating system).
- Utilized processor datasheets to write new peripheral libraries, resulting in 30% increased efficiency.
- Formed and documented a new development toolchain for embedded C firmware.

Projects

Characterising Open Cast Mining from Satellite Data

May 2023 - Sept. 2023

Conducted research on automating surface mine activity assessment using deep learning. Developed a novel Sentinel-2 dataset for change detection over surface mine areas and presented an index for activity detection in remote sensing images. The work contributes to robust environmental governance and offers a public dataset for further research.

[Link to more information.](#)

Dermoscopic Melanoma Image Segmentation and Classification using Deep Learning

Dec. 2021 - Mar. 2022

Achieved near state-of-the-art performance on segmentation and classification of melanocytic lesions using MobileNet classifiers and MaskRCNN. Inspired by the work of Phillips et al. (2019).

[Link to more information.](#)

Universal IoT Device (Senior/Bachelor's Project)

Oct. 2018 - May 2019

Developed a secure IIoT system for use in industrial settings. Key features included a secure, real-time operating system (RTOS) and multiple communication channels: UART, SPI, I2C, PWM, and full-stack Internet (UDP, TCP, HTTP).

[Link to more information.](#)

Skills

Development	Python, C++/C (x86, embedded), JavaScript, bash, MATLAB.
Software Tools	PyTorch, Tensorflow, OpenCV, OpenGL, Visual Studio.
Hardware	Schematic capture, PCB layout, STM32 ARM Cortex-M4 & M7.
Languages	English (native speaker), Spanish (CEFR B2).

Honors & Awards

UNIVERSITY OF GLASGOW

- Fully-Funded PhD Studentship:** Awarded by the Scottish Graduate School of Social Science, 2023-2026 Doctoral Training Partnership (SGSSS-DTP), on behalf of the Economic and Social Research Council (ESRC). Includes full payment of PhD fees and a stipend of approx. £18,622 for 2023/24, increased annually.

UNIVERSITY OF STRATHCLYDE

- 2022 **Faculty of Science Masters Scholarship for International Students:** Scholarship awarded on a competitive basis to candidates who demonstrate excellent academic performance.

OREGON STATE UNIVERSITY

- 2019 **Orin F. Zimmerman Scholarship:** Awarded to a single student on the basis of aptitude and interest in fostering environmentally acceptable and socially productive knowledge, innovations, and applications in electrical technology.
- 2018 **Knaus Electrical Engineering Scholarship:** Granted to one student on basis of GPA from among the top 10% of their class.

Extracurricular Activity

University of Strathclyde Faculty of Science

PGT STUDENT REPRESENTATIVE

Oct. 2022 - Sep. 2023

- Communicated with fellow students to address their concerns and feedback.
- Collected survey feedback data and presented to the student-staff liaison committee.
- Programme improvements were made on the basis of my feedback and recommendations.