

UNIVERSITY OF CAMBRIDGE

Department of Applied Mathematics and Theoretical Physics
Silver Street, Cambridge

Telephone: Cambridge 51645

6th May, 1970

Mr. M.J.C. Gordon,
Caius College,
Cambridge.

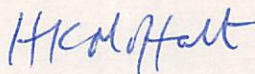
Dear Gordon,

I am returning your essay on "Perceptrons" ~~to you~~ herewith. The assessment committee was impressed with the quality of the essay, and has agreed to include your name in the "highly commended" list to be published in the Reporter in due course.

The essay was read by Dr. Marv, who as you know is particularly interested in the topic. I enclose his comments on it, although he may well have conveyed them to you directly already.

I hope you enjoyed writing the essay, and that your interest will continue to develop in what appears to be a fascinating field of study.

Yours sincerely,



H.K. Moffatt.

REPORT ON THE ESSAY BY M.J.C. GORDON

(from Dr Marv)

The essay describes the formalisations of a model for pattern discriminations based on the idea that the discrimiands can be separated by a linear decision process. He proves what is probably the only non-trivial result in the field and it shows a clear understanding of his subject matter.

The value of the subject matter is much more equivocal than Gordon's grasp of it. If, as I believe he does, Gordon intends going into pattern recognition, he should be aware (as most people apparently are not) of relevant literature from elsewhere. In particular, he should know of the following references:

Hubel & Wiesel (1962) J. Physiology 160 106-154, to see that the brain deals in things very unlike photocells: a number of special transformations are made at the periphery.

Jardini & Sibson (1968) Math. Biosciences. 2. 465-482, to see that 'clusters' and 'human images' (a horrid term) indeed are closely related, provided you pick the right space (i.e. use features, not photocells).

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COLLEGE VALLEY
PARACHMENT

MADE IN GREAT BRITAIN

I am returning your notes on "Anomalous" wave packets. The manuscript has been passed with the printer of the book and has been accepted for publication in the "British Journal of Applied Physics". The book is now in the hands of the printer and will be published in the near future. I am sure you will find the book of interest and that your interest will continue to be a most valuable asset to the Department.

Yours sincerely

W. R. Inge

