BRADLEY MAX SEGAL

I'm a newly qualified medical doctor with a passion for technology. This passion has lead me to simultaneously pursue an MSc in Biomedical Engineering with a focus on the applications of deep learning for medical imaging. Despite this focus, I am thoroughly fascinated with AI & Precision Medicine in all its forms and aim to work to bring these concepts to reality.

EDUCATION

2021 | 2020

Master of Science, Engineering (MSc Eng)

University of the Witwatersrand — Johannesburg, South Africa

2021 | 2016

Bachelor of Medicine, Bachelor of Surgery (MBBCh)

University of the Witwatersrand — Johannesburg, South Africa

- Graduated with Distinction / Cum Laude
- Vice President (2018 - 2019), Head of Communications (2017 - 2018) - Wits Students' Physicians Society
- IT Manager (2017 - 2019) - Wits Students' Surgical Society
- Class Representative (2017 - 2021)
- Best Undergraduate Research Poster (2019)
- Best Physiology & Biochemistry Student (2018) - HS Ebrahim Memorial Award
- Best Physics Student (2017) - Isaac Kushlik Memorial Prize
- Top Ten Ranked Medical Student (2016, 2017, 2021)
- Dean's Merit List (2016, 2017, 2018, 2021)
- Golden Key Invitee (2016, 2017, 2018, 2019)

2020 | 2019

Machine Learning Engineer

Udacity

- Received due to being a Top Performer in the AWS DeepRacer Tournament
- Software Engineering Fundamentals
- Machine Learning in Production
- Neural Networks - Convolutional, Recurrent, Autoencoders, Transfer Learning

2019

AI Programming with Python

Udacity

- Received as a Scholarship through the African App Launchpad Programme
- Python Programming - Jupyter Notebooks, NumPy, Anaconda, Pandas, & Matplotlib
- Linear Algebra & Calculus Essentials
- Neural Networks in PyTorch

View this CV online at *segal.co.za*

CONTACT

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Fairmount, South Africa

SKILLS

- Clinical Medicine
- Research
- AI / Machine Learning
- Data Analysis
- Data Visualization
- 3D Printing
- Teaching / Tutoring
- Programming:
  - Python
  - R

Last updated on 2021-12-14.

2015 | 2011

National Senior Certificate

King David Victory Park Highschool — Johannesburg, South Africa

- Student Representative Council (2014 - 2015)
- Summa Cum Laude - Aggregate over 90% in final examinations
- 9 Distinctions - English, Mathematics, Afrikaans, History, Information Technology, Advanced Programme Mathematics, Life Sciences, Physical Sciences, Life Orientation
- National Top 1% for English & Information Technology
- Tri-Colour Honours - Academics, Debating & Community Service
- Silver and Bronze President's Award - Duke of Edinburgh's International Award

INDUSTRY EXPERIENCE

Present | 2021

Head of Technology

Wits Healthcare Innovation — Johannesburg, South Africa

Present | 2021

Data Scientist Consultant

Phithos Technologies — Johannesburg, South Africa

RESEARCH EXPERIENCE

Present | 2019

Data Scientist Intern

Biomedical Informatics and Translational Science (BITS)

Wits Health Consortium

- Within this position, I have worked to provide insight into a variety of medical datasets with a focus on clinical data. This has been achieved through data visualisation, natural language processing of free text, ICD code mapping, and a number of other techniques. In addition, I have provided support to other researchers in formulating research questions and analysing the results through R.

GENERAL EXPERIENCE

2021 | 2017

Class Representative

Unit for Undergraduate Medical Education (UUME)

University of the Witwatersrand

- In this position I have had the responsibility to organise and represent more than 350 medical students. The scale of this task necessitated significant organisation for adequate data collection, resource distribution, and clear communication between all parties.

2019 | 2016

Academic Tutor

- Tutoring has enabled me to gain an in-depth understanding in the communication of ideas and concepts in a manner optimal to the audience at hand as well as enhancing my organisational abilities. I have spent several hundred hours tutoring a variety of students ranging from elementary school all the way through to university level across a number of subjects.

PUBLICATIONS, POSTERS, AND TALKS

2021

Evaluating the Clinical Realism of Synthetic Chest X-Rays Generated Using Progressively Growing GANs

Springer Nature Computer Science

- B. Segal, D. Rubin, G. Rubin, & A. Pantanowitz

2019

NLP Models for Length of Stay in Surgical Wards at a South African Academic Hospital

Clinical Medicine Biennial Research Day

University of the Witwatersrand

- B. Segal, I. Mare, M. Klipin
- Awarded Best Undergraduate Research Poster

CERTIFICATES

Statistical Analysis with R for Public Health

Specialization, Coursera

Imperial College London

- Introduction to Statistics & Data Analysis
- Linear Regression
- Logistic Regression
- Survival Analysis

Bioinformatics

Specialization, Coursera

University of California San Diego

- Finding Hidden Messages in DNA (With Programming Honours Track)

AI Programming with Python

Nanodegree, Udacity

Machine Learning Engineer

Nanodegree, Udacity

Mathematics for Machine Learning

Specialization, Coursera

Imperial College London

- Linear Algebra
- Multivariate Calculus
- Principal Components Analysis

Tensorflow in Practice

Specialization, Coursera

deeplearning.ai

- Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning

Organ Donation: From Death to Life

Course, Coursera

University of Cape Town

AI for Medicine

Specialization, Coursera

deeplearning.ai

- AI for Medical Diagnosis
- AI for Medical Prognosis
- AI for Medical Treatment

Data Scientist

Workera