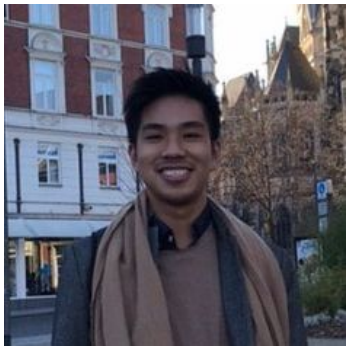
James ShaoHwee Chua



National University of Singapore
August 2017 - June 2021
BBA (Business Analytics), Minor in Language Studies (French)
GPA: 4.69/5
Dean's list 2018/2019 Semester 1

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Personal Statement

Hello! I am James, a Business Analytics student.

I've worked part-time during my studies as a Data Science intern and in a startup over these 2 years. I enjoy my time investigating datasets and uncovering insights where we can understand more about human behaviour. For example, I am currently working on user identification through clickstream data, where we detect duplicate / fraudulent users based on how they surf the site.

Internship objectives

My ultimate goal for myself is to be someone who is able to tackle any sort of problem thrown towards me. While I am most experienced in data-related roles, I am looking to take on other roles in a startup as well to improve myself. These roles can include but are not limited to: model deployment, business development, marketing and finance.

What I offer

Having worked in a startup that started from borrowing rooms in the school library to currently having an actual store, I bring with me the experience of the many lessons that we learnt from our mistakes. My insights from my background would help to accelerate the growth of the startup and provide an additional helpful perspective. As someone who is used to the need of having to learn and perform many responsibilities, I look forward to being able to help in a wide variety of roles.

Coming from both technical and nontechnical positions, I understand better the needs of both areas. This allows me to offer insights that deliver real business impact to accelerate the growth of the startup. For example, by working in sales and marketing, I observed how a large amount of the costs and buyer dissatisfaction stemmed from data entry errors. I set out to investigate how we could reduce this and implemented a regression model that reduced the vast majority of such errors, reducing our costs by thousands.

Overall, my expertise is in data analytics / science, with 2 years of experience in SQL / tensorflow / sklearn. I believe I can contribute greatly to accelerate the growth of the startup and am excited to work together with my colleagues.

Thank you,

James

Experience

Data Science Intern - Shopee Jun 19 - Current

Shopee is the leading e-commerce platform in Southeast Asia.

- Clickstream data was previously not leveraged upon for fraudulent user identification and bot detection. I created predictive models for user identification, with techniques inspired by NLP. (Word2vec, supervised document similarity based on matrix of ngrams). In the test set of 1 positive: 20 negative pairs, I achieved 0.96 PR-AUC. This allowed the confirmation of thousands of duplicate users. I worked with PySpark, SparkSQL, to extract and transform my data for training in tensorflow / sk-learn.
- The department also needed a platform for easy visualization of suspicious behaviour. I created a pipeline for automatically parsing pandas dataframes for use in Elasticsearch, speeding up the data visualization process on Kibana.

Data Analysis and Sales - SuitYourself Singapore Jun 17 – Feb 19

SuitYourself Singapore LLP is a garments startup founded by undergraduates in 2016. I joined this startup around 8 months after it started, taking on a variety of roles.

- We faced high costs stemming from human error in data entry. I created regression models to predict customer sizes. The predictions were integrated into the sales workflow to provide intuitive use, reducing costs by up to 10%.
- Previously we manually managed client scheduling, wasting hours a day. I automated this process, cutting time spent on scheduling by 90%.
- I also marketed towards university by organising and speaking in talks and roadshows for the company. I designed collaterals in illustrator and headed a Corporate Social Responsibility project in collaboration with the charity arm of the Business School Club of NUS. These projects increased sales towards our target demographic by at least 200%.
- I attended to everyday sales, becoming the best salesperson out of the team. This was in terms of average spend per customer and repeat customer rate.
- Our success has been rewarded in Straits Times article 'Young tailors disrupt made-to-measure industry with home visits and technology'.

Societies

Mentor and Analyst - NUS Investment Society (Equity Research) Sep 17- Jan 19

NUS Investment Society is a student-led organisation to educate the public on finance.

- I guided a team of Equity research analysts to report on companies in the healthcare sector, educating them on financial modelling techniques, such as a full Discounted Cash Flow model.
- I gave seminars on personal investing, as well as writing analyst reports on the healthcare sector with fundamental analysis techniques.

Head of Social Media and Website Marketing - NUS Bizad Charity Run Aug 18 – Jan 19

NUS Bizad Charity Run is a student and alumni initiative that raises funds for those in need.

- I spearheaded campaigns on platforms such as Facebook and Instagram, increasing audience engagement that led to a 150% increase in signups during the period.
- Created advertising content such as videos and posters, utilizing the Adobe Suite while managing the social media and Wix site of the campaign. The higher quality of the marketing collaterals increased the Instagram follower count by 25% in 3 months.
- Our campaign success raised a record of SGD 250,000 for cerebral palsy students.

Projects

The Average face of a student in NUS (Data mining / OpenCV)
- Do people from different faculties look different? I scrapped student pictures to create composite photos of each faculty, meanwhile visualizing the gender imbalance.I explore if predictive models are able to discriminate between students of different faculties.
Diagnosing malaria with CNNs (Python/ R / Keras)
- Malaria is a widespread and life-threatening disease. Existing manual detection methods depends highly on the experience and skill of the microscopist. I train a Convolutional Neural Network to automate this process of detecting malaria cells, achieving 0.985 AUC, significantly outperforming human methods.

Skills

Programming Languages: Python, R, Javascript, CSS, HTML
Machine Learning Libraries: PySpark ml, Tensorflow/keras, sklearn
Data querying: SparkSQL, PrestoSQL, MongoDB,
Web scraping: Selenium, BeautifulSoup4, Regular Expressions
Advertising: Facebook and Instagram advertising
Content Creation: Adobe Photoshop, Illustrator and Premiere pro
Languages: English, Chinese, French (B1 Level)

Relevant courses

Predictive Modelling / Machine Learning
BT4222 Mining Web Data for Business Insights: Natural Language Processing. Covered regex, Context Free Grammar, tree parsing, text processing, text normalization, word embeddings via Word2Vec, topic modelling via latent dirichlet allocation, generative text models.
DBA3803 Predictive Analytics in Business: The math behind popular models such as decision trees, logistic regression, SVMs etc.
GECCELM066 Big Data Analytics (HEC) and online deep learning course: Multilayer perceptron, Convolutional Neural Nets, image localisation, facial recognition, YOLO, sequence models.

Descriptive Analytics
DAO2702 Programming for Business Analytics: Statistics, seaborn, pandas and sk-learn to create data visualizations and linear regressions.
DBA3702 Descriptive Analytics With R: Using R to create dashboards with shiny for interactive insights, as well as scraping data from the web.

Operations/ Finance
FIN2704 Finance: Valuation through discounted cash flow for bonds, businesses, projects. Peer comparison and portfolio management.
GEM1MSC004 (HEC) Operations and Supply Chain Management: Flow and capacity management, inventory control, and quality assurance.