Tim **Anthony**

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Education

National University of Singapore   *Singapore*
PH.D. IN OPERATIONS RESEARCH AND ANALYTICS   *Sep. 2022 - Ongoing*

Umeå University   *Umeå, Sweden*
M.SC. IN ENGINEERING PHYSICS (DIRECT MASTERS DEGREE)   *Sep. 2015 - Jun. 2021*

Umeå University   *Umeå, Sweden*
M.SC. IN MATHEMATICAL STATISTICS   *Aug. 2015 - Jun. 2021*

Umeå University   *Umeå, Sweden*
B.SC. IN MATHEMATICS   *Oct. 2015 - Aug. 2021*

Umeå University   *Umeå, Sweden*
B.SC. IN PHYSICS   *Dec. 2015 - Feb. 2020*

SKKU (Sungkyunkwan University)   *Seoul, S.Korea*
EXCHANGE STUDIES   *Feb. 2020 - Jun. 2020*
- Courses: Advanced Data Analysis, Advanced Machine Learning,Categorical Data Analysis and Introduction to Statistical Inferences

NTU (Nanyang Technological University)   *Jurong West, Singapore*
EXCHANGE STUDIES   *Aug. 2019 - Dec. 2019*
- Courses: Neural and Fuzzy Systems, Stochastic Processes, Regression Analysis, Computational Economics and Computational Fluid Dynamics

Work Experience

Sartorius   *Umeå, Sweden*
SOFTWARE DEVELOPER   *Apr. 2022 - Jul. 2022*

Research Assistant   *Umeå University, Sweden*
SUPERVISORS: XAVIER DE LUNA & THOMAS HELLSTRÖM   *Sep. 2021 - Feb. 2022*
- Study of robot-robot interactions using casual interference
- Simulations via NetLogo

Research Assistant   *Stockholm School of Economics, Sweden*
SUPERVISOR: ADRIEN D'AVERNAS   *Sep. 2021 - Dec. 2021*
- Data management within asset pricing research
- Coded all parts from data fetching and data cleaning/pre-processing to implementation of algorithm and summarizing results
- Keywords: pre-processing, Deep Neural Networks, GPU computations, batch normalization, custom loss-functions, ensemble methods, PyTorch, parallelization, regularization

Research Assistant   *Umeå University, Sweden*
SUPERVISOR: PATRIK RYDÉN   *Jun. 2021 - Sep. 2021*
- Implemented new method for clustering mRNA data in R
- Conducted simulation study, successfully showing improvement compared to the benchmark method (kNN)
- Applied method for clustering of real cancer data

Tieto   *Skellefteå, Sweden*
SOFTWARE DEVELOPER   *Jun. 2019 - Aug. 2019*
- Full stack development building an user interface for managing settings.
- Worked closely with project owner to ensure customer satisfaction.
- Keywords: C#, HTML, Javascript, SQL, CSS, Full stack, Agile development, Version Control

Tieto
Skellefteå, Sweden

SOFTWARE DEVELOPER *Jun. 2018 - Aug. 2018*

- Full stack development working on a new component for web-based application used in health care. Finished my project early, so got to do extra work tasks improving the product.
- Keywords: C#, HTML, Javascript, SQL, CSS, Full stack, Agile development, Version Control

Boliden
Skellefteå, Sweden

FORWARDING AGENT *Jun. 2016 - Aug. 2016*

- Was responsible for transport of all lead from smelter in northern Sweden out to customers around Europe. Part of the job was communicating with transport personnel and stakeholders.
- Keywords: Independent work, high responsibility, international work, problem solving, communication

Humana AB
Skellefteå, Sweden

PERSONAL ASSISTANT *Jun. 2015 - Aug. 2015*

- Worked at the home of a 12 year old boy with severe autism and ADHD.

Research Experience

Double Degree Thesis in Engineering Physics & Mathematical Statistics
Umeå University, Sweden

SUPERVISOR: ARMIN EFTEKHARI *Jan. 2021 - Jun. 2021*

- Thesis Title: Black-Box Optimization in High Dimensions with Application to Pre-Hospital Care in Sweden
- Link: `https://www.diva-portal.org/smash/record.jsf?pid=diva2:1577649`

Double Degree Bachelour Thesis in Mathematics & Physics
Umeå University, Sweden

SUPERVISOR: MARTIN ROSVALL *Dec. 2019 - Feb. 2020*

- Thesis Title: Evaluating machine learning models for predicting glioma from single nucleotide polymorphism data
- Link: `https://www.diva-portal.org/smash/record.jsf?pid=diva2:1569579`

Skills

Programming	MatLab, Python, R, C, C#, C++, Java, Javascript, HTML, SQL,LabVIEW
Documentation	Latex, Microsoft Office
Tools	Pandas, Tensorflow, PyTorch, Numpy, Jupyter Notebook, Keras, Matplotlib, Google Colab, Microsoft Studio, Eclipse, Version Control
Languages	Swedish (Native), English (Professional), Spanish (B1)
Machine Learning	Linear models, GLM, random forest, PCA, t-SNE, autoencoders, neural networks, CNN, RNN, RBF, NLP, kNN, Word Embeddings, Feature Extraction, Data clearning, pre-processing, Prediction, Clustering, Regression, Decision trees, SVM, LDA, QDA, Ridge/Lasso regression, SOM, ANOVA/MANOVA, AR/MA/ARMA/ARIMA

Extracurricular Activities & Volunteering work

Buddy programme
Umeå, Sweden

Buddy
Jan. 2018 - Jun. 2018

- The Buddy Programme is a student driven organization that helps international students settle down and get to know the student life.
- I helped welcoming international students to the university and help them with practical matters. Also organizing events and activities.

NärU (Corporate relations committee - Physics branch)
Umeå, Sweden

President
Sep. 2017 - Jun. 2018

- Led a small group volunteering to improve the relations between companies and students of Engineering Physics.
- Representative of the Physics students in the Student Union corporate relations committee.
- Board member of F-sektionen (Student Union - Physics branch). Attended biweekly meetings. Distribution of budget to student clubs.

Enar IF (Sports Club for Engineering students)
Umeå, Sweden

President
Sep. 2017 - Jun. 2018

- Held training sessions for engineering students once a week.
- Arranged a soccer tournament.

F-sektionen (Student Union - Physics branch)
Umeå, Sweden

Board member and communication officer
Sep. 2016 - Jun. 2017

- Responsible for all communication within the organization. E.g. calling to general meetings and writing in student magazine.
- Attended biweekly meetings. Distribution of budget to student clubs.

Studienämnden (Quality of Studies committee)
Umeå, Sweden

Member
Okt. 2015 - Jun. 2018

- Review course evaluations and discussing possible improvements with teachers to achieve high standards of courses taken undergraduate part of the Engineering Physics programme.
- Quarterly meetings with the program management of the Engineering Physics programme, evaluating the quality of courses taken by physics students.

NCPC (Nordic Collegiate Programming Contest)
Umeå, Sweden

Participator and team coach
Nov. 2015,2016,2017

- University rankings:
- 2015: 11/15
- 2016: 6/19
- 2017: 4/18

FUM (Student Union Council of Engineering and Science students)
Umeå, Sweden

Representative of Physics programme (1 of 4)
Okt 2015 - Jun 2018

- The council is the student union's highest decision-making body and meets at least six times per financial year to decide the student union's direction and job description.
- Voting on the appointment of new student union board.
- Representing the approx. 4000 members of the student union.

Smartstudies
Skellefteå, Sweden

Volunteering Study coach
Nov. 2014 - Apr. 2015

- Made home visits and helped high school students who struggled with mathematics.