Wai Lam Jonathan Lee

jonathanwailamlee.com

Email : jonathan.wailam.lee@gmail.com

EDUCATION

Pontificia Universidad Católica de Chile　　　　　　　　　　　　　　　　Santiago, Chile
PhD in Computer Science　　　　　　　　　　　　　　　　　　　*Aug. 2016 – Aug. 2020 (Expected)*
- Thesis title: Advancing decomposed alignment-based conformance checking in process mining
- Investigate various problems on relating modeled and observed behavior in processes, i.e., conformance checking
- Research stays at TU/e (Eindhoven, Netherlands) and DTU (Copenhagen, Denmark)

The Chinese University of Hong Kong　　　　　　　　　　　　　　　　Hong Kong, China
Bachelor of Business Administration; GPA: 3.6/4.0　　　　　　　　　　　　　*Aug. 2011 – July. 2016*

PROJECTS

- **Mineral ID**: Deep learning mineral classification with human assisted filtering web application (WIP)
  - Coverage of approximately 1000 out of 5000+ officially recognized mineral
  - No existing mineral image datasets: I had to collect, clean, and process our mineral images
  - Designed appropriate evaluation metric to fit the inherently multi-class multi-label problem
  - Deployment of the prediction API by using docker-compose to orchestrate nginx, tensorflow-serving, and Django

- **HMMConf**: Heroku Django web demo of HMM-based (Hidden Markov Model) conformance checking algorithm
  - Tackle problem on online conformance checking on an event stream
  - Designed a modified HMM model where previous observations can influence next states
  - Derived closed form updates using the EM algorithm
  - Showcase on a real-life data of a Dutch hospital billing process

- **OpyenXes**: Open source python package for XES, MXML event log files

SKILLS

- **Programming/Scripting Languages**: (Proficient) Python; (Familiar) Java
- **Database**: Postgres
- **Others**: Docker, AWS S3, Heroku

SELECTED PUBLICATIONS

- Wai Lam Jonathan Lee, H.M.W. Verbeek, Jorge Munoz-Gama, Wil M.P. van der Aalst, Marcos Sepúlveda, "Closing the Circle on Decomposed Alignment-Based Conformance Checking in Process Mining through Recomposing Conformance", Information Sciences 2018

- Wai Lam Jonathan Lee, Denis Parra, Jorge Munoz-Gama, Marcos Sepúlveda, "Predicting process behavior meets factorization machines", Expert Systems with Applications 2018

EXPERIENCE

Pontificia Universidad Católica de Chile　　　　　　　　　　　　　　　　Santiago, Chile
Teaching Assistant for Process Mining (2017/1)　　　　　　　　　　　　　*Mar. 2017 - Jul. 2017*
- Prepared the methodology, evaluation and teaching materials for the course

PricewaterhouseCoopers Hong Kong　　　　　　　　　　　　　　　　Hong Kong, China
Audit Trainee　　　　　　　　　　　　　　　　　　　　　　　　　*Jan. 2014 - Mar. 2014*

AWARDS

- **CONICYT National Doctorate Scholarship 2017**: Full scholarship to pursue doctoral studies