Li Lianjie, Anthony

Waterloo Street Block 262 #12-219, Singapore, 180262
anthony_li@u.duke.nus.edu • +65 92385863 http://llja0112.github.io/bio.html

EDUCATION

M.D. Doctor of Medicine, Duke NUS Medical School   Aug 2015 – Present
- Thesis: Application of Machine Learning to Acute Coronary Syndrome patients to predict reinfarction and mortality
- Relevant Courses: Research Methods and Analysis, Evidence Based Medicine

B.Eng. Electrical Engineering, National University of Singapore   Aug 2009 – Jun 2013
- Awarded First Class Honors (CAP: 4.50)
- Thesis: Automated Prostate MRI Segmentation [Paper link]
- Relevant Courses: Advanced Control Systems, Image Processing and Computer Vision, Engineering Mathematics, Analytical Methods In ECE

PROFESSIONAL EXPERIENCE

Research Medical Student, National Heart Center Singapore   Sep 2017 – Present
- Perform research on predictive risk modeling on Acute Coronary Syndrome patients.

Software Engineer, Experimental Systems and Technology Lab   Oct 2014 – Aug 2015
- Full stack development and deployment of applications for education under the Agile programming methodology

Senior Officer, A*STAR, Science Engineering Research Council   Aug 2013 – Sep 2014
- Technology planning, grant administration and research management for Urban Systems Initiatives, Satellite Initiatives and Infocomm Public Service Funding Research Projects.

RESEARCH

Sia, X.Y.S., <u>Li A.L.</u>, **Hierarchical Module Classification in Mixed Initiative Conversational Agent System**, *27th ACM Conference on Information and Knowledge Management* [Paper link]   Nov 2017

<u>Li A.L.</u>, Deshpande A., Sarraf-Yazdi S. **Making meaning out of disorienting dilemmas, assumptions and emotions: a prelude to reflective write-ups.**, *International Consortium of Longitudinal Integrated Clerkship 2017*   Oct 2017

Koong H. N., Bang D., Fung F. Y., <u>Li A.L.</u> **A replay of our tutorials: A connection back to the soul of medical education**, *International Consortium of Longitudinal Integrated Clerkship 2017* Oct 2017

Xiong W., <u>Li A.L.</u>, Ong S.H., Sun Y. **Automatic 3D Prostate MRI Segmentation**, *Pacific-Rim Conference on Multimedia (PCM) 2013* [Paper link]   Aug 2014

AWARDS

AM ETHOS Medical Student Fellowship Grant 2017   Oct 2017

Singhealth Duke-NUS Academic Medicine Center
- Awarded a $10,000 grant to study application of machine learning algortihms to Acute Coronary Syndrome patient catheterisation and echocardiograph datasets to predict patient mortality and morbidity.

Analyticup Hacakthon 2017 3rd place   Nov 2017

27th ACM International Conference on Information and Knowledge Management
- Developed a times series risk predication model for DHL's temperature controlled supply chain for biomedical products.

Singhealth Hackathon 2017 1st place, *Singapore General Hospital*   Jan 2017
- Developed CHIT, a mobile application for communication and task coordination.

A*STAR Borderless Award, *Science and Engineering Research Council*   May 2014
- Awarded for outstanding research contribution to A*STAR Data Analytics platform.

Dean's list, *National University of Singapore*   Jul 2013
- Awarded to top 5% of engineering students in academic excellence in NUS Faculty of Engineering

PROJECTS **Application of Machine Learning on patients with organ failure secondary to acute injuries**
Starting in 2018

Application of Machine Learning to catheterization and cardioechographic data
Current research project.

Hierarchical Module Classification Visualization
Admin page to visualize decision making process behind patient bot responses. [Project link]

Reflections platform
Platform for medical students to write and consolidate reflections. [Project link] [Website link]

Clinical knowledge platform
Clinical knowledge made accessible in the form of checklists and approaches. [Website link]

Medical Knowledge Website Scraper
Scrap websites for knowledge to build models for patient bots. [Project link]

INVITED TALKS *"CHIT: Communicating Healthcare, Integrating Technology"*   Feb 2017
  ▪ Singapore General Hospital, Singapore

"Deep learning language models with Tensorflow" [Slides link]   Jan 2017
  ▪ Ministry of Education, Experimental Systems Technology Lab

"Bootcamp on Software Application Design and Mockups"   Jan 2017
  ▪ Singapore General Hospital, Singapore

IN THE MEDIA ▪ Finding a way to the patient (6 Oct 2017 | Tomorrow's Medicine)
  ▪ The doctor patient conversation (21 Sept 2017 | Tomorrow's Medicine)
  ▪ All on the same chit (13 Apr 2017 | Microscope)
  ▪ 5 Cool Ideas from Singhealth Hackathon 2017 (11 May 2017 | Tomorrow's Medicine)
  ▪ Breakthroughs, new ideas and innovations galore (Feb 2017 | Singhealth Residency)

PROGRAMMING **Languages:** Python, R, C, C++, Ruby, Octave/Matlab, HTML5, Javascript, CSS, SQL, Labview

Packages: SKLearn, XGBoost, MICE, Caret, Tensorflow

Tools: Git, Latex, RStudio, Docker, Google Analytics, Jupyter Notebook, Atom

Frameworks: Rails, Django, CodeIgniter, Symphony, Electron, Elasticsearch, Logstash, Kibana, Selenium, JQuery, React, Flux

Third party: Heroku, Amazon Web Services, Digital Ocean, Mailgun

STUDENT LEADERSHIP **President**, Duke NUS Medical Technologies Student Group   Aug 2017 – Present
Vice President, Duke NUS Emergency Medicine Student Group   Aug 2017 – Present
College Representative, Duke NUS Benjamin Sheares College   Aug 2017 – Present
Teacher Advisor, Red Cross Youth NUS Chapter   Jun 2014 – Present

SPOKEN LANGUAGES English: Expert business proficiency
Chinese: Expert business proficiency