LI JIA YANG

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Education

Nanyang Technological University   Singapore
B. Eng. Hons Materials Engineering   *Aug. 2017 – May 2021*
- Nanyang Scholarship, 4.63/5.0

Coding Projects

Shopee Code League | *Python, Jupyter Notebooks, Google Cloud Platform*   June – Aug 2020
- Set up data pipeline: Kaggle > cloud storage > Google Colab Notebooks for faster analysis
- Set up github repository for team

Experience

Analyst   May 2020 – Present
ALLFED - Alliance to Feed the Earth in Disasters   *Remote, part-time*
- Final year project
- Research on global catastrophic risks and how they affect industry
- Aim to answer this question: If all of our electricity grids shut down for 5 years or more, how can we preserve industry and infrastructure such that we can resume industry as quickly as possible?

Research Associate   Feb – Mar 2020
DouxMatok   *Petach Tikva, Israel*
- Synthesised sugars with new additives using vacuum mixers
- Proposed new research protocol to test food products
- Prepared rheology calibration curves

Research Assistant   Jul 2019 – Jan 2020
Cuberg Inc.   *Emeryville, CA, USA*
- Worked in the glovebox: built 412 coin cells, synthesised 125 electrolytes
- Created and upgraded three critical tools in Google sheets and Jupyter notebooks for better data analysis, which automated previously-manual processes
- Built battery testing equipment (software and hardware)
- Conducted a human subject study to determine which video game dungeon generation technique is enjoyable
- Wrote an 8-page paper and gave multiple presentations on-campus
- Presented virtually to the World Conference on Computational Intelligence

ESG Data Analyst   May – Aug 2018
Schneider Electric   *Singapore*
- Optimised usage of in-house energy monitoring software and reaped energy savings of $1,545 per month
- Created 12 other mini-deliverables; 10 were self-initiated. These include databases, guides, and reports, along with internal learning materials for EcoStruxure, Schneider Electric's main product offer
- Founded the Singapore branch's Green Committee
- Organised Global Environment Day activities for the staff

Research (papers linked)

Rechargeable aqueous zinc batteries
with Prof Srinivasian Madhavi   Aug 2018 – Jun 2019
                                                                       NTU, Singapore
- Synthesised electrolytes, ran CVs & three-electrode tests
- Published results in URECA (undergrad research) proceedings

Lithium ion battery anodes
with Prof Srinivasian Madhavi   Dec 2017 – May 2018
                                                                       NTU, Singapore
- Synthesised battery slurries
- Learned various techniques: XRD analysis, cyclic voltammetry, thermogravimetric analysis, hydrothermal synthesis, data analysis
- Published paper in ChemElectroChem (third author)
  - ∗ DOI: 10.1002/celc.201801244

Dye-sensitised Solar Cells
with Associate Prof Soo Han Sen   Apr – Jul 2017
                                                                       NTU, Singapore
- Tested 4 experiment variables and conditions
- Increased scale of synthesis by 20%

Extracurriculars

Founder
Breathe Easy NTU/Hazy Waste   Jan 2018 – present
- Won $5,000 grant to promote sustainable palm oil in Singapore
- Lead a team of 18 to survey 237 students and 44 canteen vendors for their view on palm oil, producing 2 reports on the results
- Converted one canteen to sustainable palm oil; NUS followed suit

Operations
Effective Altruism Singapore   Jul 2018 – Present
- Set up scalable Eventbrite ticketing platform with Zapier integration
- Facilitate inaugural Arete Fellowship in Singapore for Asia

External Liaison Director
Earthlink NTU   Aug 2018 – May 2019
- Lead a team of 3 to organise 3 events and run 3 booths, with total turnout of 450 across the 6

Assistant Head
ASEAN Youth Organization   Jul 2018 – Jul 2019
- Organised the ASEAN Youth Conference for roughly 100 ASEAN participants in an international team of 17

Skills

Languages: Python, C/C++, SQL, JavaScript, HTML/CSS, R
Human Languages: Chinese, Japanese (JLPT N2), Shanghainese
Developer Tools: Jupyter Notebooks, Git, Google Cloud Platform, VS Code, Amazon AWS
Blog: adventgineering, sustainabam