

**K-TYN TANG KAI TING**  
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## **WORK EXPERIENCE**

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### **Silver Factory Technology Chip Production Lead (Nanoparticles)**

**May 2021 – May 2022**

- Headed the department for production of nanoparticles and full chain of processing to sensor chips.
- Developed and optimized safe and robust chemical processes for transfer to new plant facilities and mass production scale within budget.
- Increased production throughput of department by 300% within 7 months:
  - Identification of R&D projects required for long-term production forecasts and coordination of efficient execution between 5 different operations teams.
  - Tightly synchronized production scheduling to meet production targets and monitoring of up to 10 concurrent R&D trials.
- Developed automated dashboard for production yield analysis and reporting to management.
- Planned weekly production targets in alignment with management priorities and operational practicalities.
- Acted as department liaison with software and deployment departments to ensure alignment in growth for product performance.
- Reviewed and calculated labour, materials, and equipment costs for sustainability of work.
- Maintained ISO 13485 documentation to achieve 0 findings in January 2022 ISO audit. e.g. IQOQPQ, Engineering Change Orders, work instructions, and lot release records.
- Participate in risk management and QA processes (FMEAs, CAPA, NCRs).
- Function as Project lead for cross-departmental and third-party projects.
- Establish KPIs, execute hiring plans and training plans for entire department.

### **Silver Factory Technology Production Engineer (Nanoparticles)**

**Mar 2021 – May 2021**

- Obtained, set up, and implemented EN ISO 13485:2016 accreditation for IVD devices.
- Participant for ISO audit for nanoparticle production in proprietary rapid COVID-19 breathalyser product.
- Established official documentation for all aspects of nanoparticle production process.
- Optimized and up-scaled nanomaterial production process from laboratory to pilot scale, achieving production stability and consistency at pilot scale.
- Designed and built semi-automated Excel system for traceability, inventory management, product deployment and stocks tracking.
- Liaised with cross-functional teams and departments to incorporate new systems/processes/QC inspection methods and evaluation criteria compliant with QMS.
- Planned and assisted with setup of manufacturing plant for nanomaterial production.

### **AgriProtein Singapore Research Assistant – Insect Feed Nutrition**

**Oct 2020 – Feb 2021**

- Deep learning of feedstocks, insect rearing technology and applications in growing aquaculture, agriculture, and animal feed industries.

- Design and execute nutrition research projects for Black Soldier Fly larvae including preliminary work on amino acid requirements and physical feed properties.
- Supporting pilot plant operations for the Entomology department, including daily colony maintenance and upkeep of breeder fly stock, and trials for both adult and larval *Hermetia illucens*.
- Feedstock/food waste sourcing with local wholesalers and vendors for cost reduction.

**Singapore Zoological Gardens**  
**Junior Keeper – Elephants**

**Dec 2019 – Oct 2020**

- Provision of care for 0.5 Asian elephants in accordance with EAZA and ZAA standards.
- Animal husbandry and operant conditioning focused on positive reinforcement training.
- Design and construction of enrichment devices for animal physical and mental health.
- Acted as conservation ambassador for the Singapore Zoo through large scale educational presentations and hosting online personalised wildlife interactions.
- Observation and data entry of daily behaviours and enrichment device use for animal studies research, including daily data entry of medical and husbandry records for each animal on Species360 ZIMS.

**Dupont Danisco Singapore**

**Jan 2019 – Jun 2019**

**Application Technologist Intern (Nutrition and Health, RTD beverages)**

- Conducted trials in pilot plant involving preparation of raw materials for trials, as well as operation and cleaning of equipment.
- Assisted supervisors in innovation of new product applications of drink stabilisers and emulsifiers and investigated product instability based on formulation/trial processes.
- Performed shelf-life analysis of finished samples in the laboratory and identified signs of instability in products via visual analysis, viscometry, microscopy, acidity as well as tests personalised to the product and client needs.
- Coordinated and participated in sensory evaluations.

**EDUCATION**

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**Nanyang Technological University, Singapore**

**Aug 2015 – Jul 2019**

**B.Sc. (Hons) Biological Sciences with 2<sup>nd</sup> Major in Food Science & Technology**

- Graduated with Second Upper Class Honours (Distinction), GPA: 4.26/5.00
- Linköping University, Sweden (Aug 2018 – Sep 2018)
- University of Exeter, England (Sep 2017 – Jan 2018)
- Vietnam National University, Vietnam (Dec 2016 – Jan 2017)

**CO-CURRICULAR & VOLUNTARY ACTIVITIES**

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**National Parks Board Singapore**

**Nov 2019 – Present**

Volunteer, Surveyor

- Benthic sampling and taxonomic classification in Sungei Buloh Wetland Reserve.
- Monitoring and maintenance of reforested trees in Central Catchment Nature Reserve.

**NTU Food Science and Technology Society**

**Aug 2018 - Aug 2019**

Social Outreach Director

- Researched and coordinated opportunities for members to learn/contribute to food sustainability and reduction in food waste at school events and Disruption in Food and Sustainability Summit.

## **OTHER SKILLS**

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**Software applications:** Highly proficient in Microsoft Office, Python 3, Excel VBA, Design Of Experiments, Principal Component Analysis. Familiar with SPSS Statistics, PyMol.

**Languages:** English and Basic Mandarin.

**Other certifications/skills:** PADI Advanced Open Water Diving Certificate, and CSTD Modern Jazz Dance Teaching Certificate, Mascot Performance, Kombucha and Kefir fermentation, Educational nature videography.