Chatdanai Lumdee, PhD

-- A lifelong learner. Physicist turned data scientist. Finding his ways into data-driven society.

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COMPETENCES:

Data science and analytics

- Excellent proficiency in data processing, analysis, and visualization using Python (Jupyter Notebook, Numpy, Pandas, Matplotlib, Seaborn, Plotly, scikit-learn, etc.), Excel, Matlab, and Origin
- Working skills in data dashboard with PowerBI
- Working proficiency with big data tools such as SQL and PySpark
- Example projects with Python (most in Thai – click on links to see the projects)
  1) Idol popularity monitoring using Twitter streaming
     - Uses Twitter Python API to stream data (Python networking interface and PySpark) and shows streaming results in real-time
  2) Building a recommender system
     - Explains the mathematical model and creates a recommender system with NumPy and Scipy
  3) Blockchain DIY
     - Demonstrates how to visualize and to create a blockchain network with reasonable assumptions

Characters and soft-skills

- Detail oriented experimentalist who formulates plan based on theories, observations, and critical thinking
- Great technical writer and presenter (Thai and English) with a proven record of publications in top-tier scientific journals, presentations at international conferences, and knowledge sharing on a personal blog/Medium
- A team player with experiences working in multi-cultural ecosystems
- In love with learning and improving oneself and the team as well as tackling challenges

(Bonus): Expert in optical physics and nanotechnology with both fundamental knowledge and hands-on experiences where have been a guest speaker at several educational institutions (see talks).

CAREERS: Data science and analytics

Data scientist (Digital consultant) 09/2018 – present
Applied Intelligence, Accenture Digital, Accenture – Bangkok, Thailand

Job description: Apply big data and analytics expertises to help businesses, organizations, and governments redefine how they serve connected customers and operate their connected enterprises.

Responsibilities:

- Data wrangling with SQL and python, and model building
- Create data dashboard with PowerBI
- Work with business team to provide data for strategic planning and presentations
- Discover insights from data and deliver key findings to facilitate business decisions

Data scientist (Associate visionary architect) 11/2017 – 08/2018
KLabs, Kasikorn Business-Technology Group (KBTG) – Bangkok, Thailand

Job description: Apply data science and machine learning techniques with customer data to develop personalized financial services -- for example KADE (K PLUS AI-Driven Experience).

Responsibilities:

- Extract/transform/load data from database using tools such as Impala
- Clean data, explore data and build machine learning models (e.g. look-alike targeting and churn analysis) as well as evaluate a model's performance
- Package model pipeline (from ETL to prediction) for deployment
- Review models and make plans with other teams within Kasikorn Group to deliver data-driven approaches that improve our services to current and prospective customers

CAREERS: Research (check these links for publications and presentations)

Postdoctoral research scientist 04/2016 – 10/2017
Department of Physics, University of Gothenburg/Chalmers – Gothenburg, Sweden

Research topics: magnetoplasmonics, nanomagnetism

Research description: We are exploring the interplay between nanoscale optics and magnetism with the aim to develop a technological platform for the next generation of data storage units (a European Union's project in EU Horizon2020 program).

Graduate research scientist 08/2010 – 01/2016
CREOL/The College of Optics and Photonics – Orlando, Florida, USA

Research topics: nanophotonics, surface plasmon resonances, gap-plasmons

Research description: I spent my time studying how nanoscale objects and light interact. This research area is the core foundation of several emerging technologies including single-molecular sensing, surface enhanced photocatalysis, and heat-assisted magnetic recording.

EDUCATION

Ph.D. in **Optics and Photonics** 08/2010 – 12/2015
CREOL/The College of Optics and Photonics, University of Central Florida – Orlando, Florida, USA
GPA: 3.95/4.00

B.Eng. in **Nano-engineering** *(major in Nanoelectronics)* 08/2006 – 05/2010
Chulalongkorn University – Bangkok, Thailand
GPA: 3.91/4.00, Graduated with First Class Honors

Please find my website for additional information