Jirachote Karunyakorn

Address: 62/152 Pakret Nontaburi 11120

Email: sonsunjirachote@gmail.com

Contact: 092-557-2548

WORK AND ACADEMIC EXPERIENCE

- **Bluefin Life Technologies**　　　November 2022-May 2023 (6 months)
  - *Part-time Bioinformatician/ Data analyst*
  - Developing bioinformatics analysis pipelines to conduct pathway enrichment analysis and create a model for scoring the mode of action of curcumin based on responses from various cell lines.
- **Athena AI**　　　　　　July 2022-Present (1 years 3 months)
  - *Bioinformatician/ Consultant*
  - Developing bioinformatics pipelines for the calling and prioritizing of variants in whole exome and whole genome sequencing data to support clinical analyses.
  - Designing and implementing functional modules for bioinformatics platform, enabling comprehensive analysis modes, disease risk screening, and publication retrieval.
  - Offering bioinformatics expertise to establish the core workflows of an integrated bioinformatics software system, dedicated to identifying pathogenic clinical variants and mutations.
  - Testing software to ensure precise execution of clinical mutation analysis logic and adeptly identifying and resolving software anomalies.
  - Design initial user experience (UX) and user interface (UI) designs, as well as structuring the software's database architecture.
  - Engaging in communication and coordination with domestic and international companies and government entities as necessitated by project requirements.
  - Providing strategic input for business development and marketing, including sales strategies and competitor analysis.
- **ATGenes Co. Ltd.**　　　　July 2022-Present (1 years 3 months)
  - *Clinical bioinformatician/ Data analyst*
  - Establishing a clinical bioinformatics pipeline to uncover pathogenic variants with direct relevance to diagnoses from physicians, utilizing whole exome and whole genome sequencing data.
  - Conducting literature reviews and performing primary data analysis to assess suspected pathogenic variants in accordance with ACMG guidelines.

- Communicating with international laboratory vendors to arrange sample shipments and obtain data for analysis.
- Writing comprehensive technical medical reports on audited pathogenic variants for physicians.
- Engaging in research and development activities to innovate new bioinformatics pipelines for the analysis.
- Maintaining and overseeing the whole exome and whole genome sequencing database.
- Performing data analysis on internal datasets for scientific research purposes and contributing to the formulation of corporate strategies.

- **Dr. Pornchai's lab at Department of Biochemistry, Faculty of Medicine Chulalongkorn University**   October 2020-July 2022 (1 years 10 months)
  - *Graduate student and researcher*
  - Main project: Computational workflow development for identification of polyadenylated RNA in prokaryote from direct RNA nanopore sequencing data with polyuridylation
  - Collaborate project: Using Xpore to build M^6-Methyladenosine (m6a) signal database
  - Advisor Pornchai Kaewsapsak Ph.D.
- **EPA Academic Center**   January 2022-May 2022 (5 months)
  - *Part-time biology teacher*
- **Math talent by Dr. Ying**   December 2022-March 2022 (4 months)
  - *Part-time science teacher*
- **Dr. Warut's lab at Department of Biology, Faculty of Science, Mahidol University**   April 2019-April 2020 (1 years)
  - *Undergraduate student*
  - Project title: Comparative phylogeny and DNA barcode of Asian Centipede in genus *Scolopendra* linnaeus, 1758
  - Advisor Warut Siriwut Ph.D.
- **Freelance**   May 2018-Present (6 years and 5 months)
  - *Biology tutor*

EDUCATION

- **Chulalongkorn University**   (2020-2022)
  - Graduated school, M.Sc. in Bioinformatics and Computational Biology Program
  - GPAX 4.00
- **Mahidol University**   (2016-2019)
  - Faculty of Science, B.Sc. in Biology
  - GPAX 3.71 (First Honor degree)

AWARDS

- **H.M. the King Bhumibhol Adulyadej's 72nd Birthday Anniversary Scholarship (fully funded)** (2020)
  Graduated student scholarship with full paid tuition fee and monthly salary

- **MU-backpack scholarship (fully funded)** (2018)
  The short-term cultural exchange study in Vietnam

- **HOK scholarship (half funded)** (2015)
  The short-term exchange secondary student in Singapore

WORK SKILLS

- Bioinformatics
  - Retrieval of information and data mining (NCBI, ensemble, KEGG, etc.)
  - DNA/RNA sequencing analysis (Sanger, illumina, Oxford Nanopore)
  - Proficient with bioinformatics software (e.g., samtools, GATK, bioconda tools)
- Programming language
  - Bash (Basic)
  - R (Intermediate)
  - Python (Intermediate)
  - SQL (Intermediate)
  - HTML5, CSS3 and Javascript (Basic)
  - DAX (Basic)
  - Excel formula (Basic)
- Data analysis skill
  - Data wrangling and manipulation (Pandas, Scipy, Numpy, etc.)
  - Data visualization (ggplot, dplyr, matplotlib, etc.)
  - Basic Machine learning with scikit-learn (Clustering, Regression, Classification)
  - Prompt engineering for generative AI
  - Basic web scraping with BeautifulSoup4
  - Database querying with MySQL
  - Dashboard and report design
  - Statistical analysis
- Dashboard design platform
  - PowerBI (Intermediate)
  - Tableau (Basic)
  - Looker studio (Intermediate)
- Soft skills
  - Data-driven problem-solving through investigation, analysis, reporting, and action
  - Continuous learning and adaptability
  - Strong teamwork and communication

- o Positive growth mindset
- o Proficient in Agile methodology
- Version control
  - o Git (Basic)
  - o Docker (Basic)

LANGUAGES

- Thai (Native)
- English (Intermediate Working Proficiency, TOELF ITP 513)
- Japanese (Basic, JPLT N5)