Tanapol Prucksakorn

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https://tanapol.dev

Skills

- **Programming**:
  - **Rust**: My favorite programming language. Started since 2019. See projects below for my Rust experiences.
  - **Python**: My current go-to language for development. It is the programming language I am using at work and in research.
  - **TypeScript, JavaScript**: Experienced with React-TypeScript (at work), Vue-js (my homepage)
  - **C/C++**: Able to read/understand/modify C and C++ code.
- **Development Experience**:
  - **Infrastructure**: AWS: lambda, S3, EC2, SQS, SNS, API Gateway, Amplify, AppSync and Quicksight. Tools: Terraform
  - **Microservices**: Built and transformed part of an old code-base to microservices.
  - **Database**: PostgreSQL and SQLite
- **Machine learning**: Reinforcement learning, developmental learning, neural networks (Doctor, Master's). Able to read and implement things from academic papers.
- **Networking**: Surface level of understanding. Experience of deploying an HTTPS server, a private DNS, and a private VPN in a small home-lab.
- **Learning skills**: Capable of adapting and learning new technologies quickly.
- **Languages**: Thai: Native, English: Proficient, Japanese: Intermediate (JLPT N2)

Experience

- **Dynamic Map Platform** — Tokyo, Japan
  Software Engineer — *January 2021 - Present*
  - **Development**: Experienced in development with people across countries between the team in the U.S., Australia, and Japan. Refactored the old code-base to be more readable and reusable. Create unit tests for the existing code. (Python, PostgreSQL)
- **QBIT Robotics** — Tokyo, Japan
  Software Engineer (Full Stack) — *Mar 2019 - January 2021*
  - **Omotenashi Engine**: Design and implement the foundation of the Omotenashi Engine that is used in &robot café. Maintain and review the source code. (Python)
  - **Robot experiences**: Migrate the code base to microservices. Create an API for controlling a robot arm (wrapping the existing API) such as XArm, UR5 Robot Arm, Sawyer, and Melfa Assista. (Python)
  - **Delivery Robot (NEDO)**: Develop the front-end web-interface, the back-end infrastructure for delivery robot with Serverless concept in mind. (React, TypeScript, Terraform, AWS, Amplify)
  - **Other experiences**: Refactor existing code to be more scalable and readable. Mentor juniors. Utilize the commonly available tools and practices: AWS services, CI/CD, Build Automation, Data Analysis, Event Sourcing, React, Django, Docker.
- **Japan Advanced Institute of Science and Technology** — Ishikawa, Japan
  Research Assistant — *Nov 2014 - Apr 2018*
  - **Japanese-German Collaborative Research on Computational Neuroscience: Autonomous Learning of Active Depth Perception: from Neural Models to Humanoid Robots**: Implement a biological inspired active depth perception framework for robots. Main components of the research were **sensory coding**: active efficient coding theory, **reinforcement learning**, and neural network. (MATLAB, V-REP, Python)
- **Sirindhorn International Institute of Technology, Thammasat University** — Pathum Thani, Thailand
  Teaching Assistant — *May 2012 – May 2013*
  - **Lecture&Teaching**: Give lectures on basic electronics. Teaching assistance on Mobile Application Programming Course. (Objective-C)

Projects

- **Rust mini projects**: github.com/zynaxsoft/{ mycraft-rs smol_webhook, belowtherocks, ray-tracing } and more.
- **https://tanapol.dev**: My website. Check github.com/zynaxsoft/tanapol.dev for more details. (JavaScript, Vue-js, CSS, Docker, NGINX)
- **Drones**: Built Tri-copter and Quadrotor for projects in Bachelor's degree. They are built from scratch by using Arduino, XBee, IMU, ESC, and brush-less motor (MATLAB, C)

Education

- **Japan Advanced Institute of Science and Technology** — Ishikawa, Japan
  Doctor of Philosophy (Ph.D.), Robotics, School of Information Science — *Oct 2015 – Dec 2018*
  Master's degree, Robotics, School of Information Science — *Oct 2013 – Sep 2015*
- **Sirindhorn International Institute of Technology, Thammasat University** — Pathum Thani, Thailand
  Bachelor's degree, Electronics and Communication Engineering — *May 2009 – Apr 2013*