Satrya Budi Pratama

satrya.**zeroinside**.id
github.com/noczero

satrya@**zeroinside**.id
+62-822-7700-9251
linkedin.com/in/satrya-budi-pratama

INTRODUCTION

A talented software developer who love to build good product. Always on the move to be able to catch up and learn with new technology which include but not limited in computer and electrical engineering area.

EDUCATION

- **Bandung Institue of Technology** — Bandung, Indonesia
  *Master of Eng. - Control Eng. & Intelligent System; GPA: **3.43** out of 4.00* — *January 2020 - December 2022*
  *Supervised by **Prof. Bambang Riyanto Trilaksono** on Autonomous Drone Development for Exploration and Surveillance with Hybrid Communication under the Robotics Research Laboratory.*

- **Telkom University** — Bandung, Indonesia
  *Bachelor of Computer Science - Informatics; GPA: **3.87** Cum Laude out of 4.00* — *August 2015 - August 2019*
  *Supervised by **Dr. Bayu Erfianto** on Quadcopter Attitude Control System using Hand Gesture Tracking.*
  Awardees of Best Innovation on Technology Development KRTI 2018, APICTA 2018 Indonesia Delegation, Best Design on Internet of Things Telkom University Competition, 2nd winner on Internet of Things Challenge Competition Electrical Engineering Days ITB 2018, 3rd Winner Fixed Wing on KRTI 2017, and 3rd Winner Balloon Atmosphere on KOMURINDO-KOMBAT 2017.

EXPERIENCE

- **Influx** — Remote
  AI Implementation Engineer (Full-time) — *May 2023 - Present*
  - **Contributed for the implementation and integration of artificial intelligence (AI) solutions**:
  - Developed ChatFlux: an AI a chat bot assistant for internal organisation.
  - Developed Forecaster for forecasting the revenue.
  - Developed AI Copilot to support the Customer Service agents and the clients.
  - **Impact**: It improved our productivity, cut of manual process for forecasting, and increase revenue opportunities.

- **PT. Ihsan Solusi Informatika (IT Consulting)** — Remote
  IT Business Analyst and Quality Assurance (Part-time, Contractual) — *January 2022 - August 2022*
  - **Contributed to BDS (Branch Delivery Systems Services) for PT. Bank Aladin Syariah in Phase 2**:
  - Analysed and communicated the technical requirement and specification from Aladin team to our developers.
  - Tested and validated the completed features then give some recommendation how to improve it through code review.
  - Managed `Git` branching for development and deployment.
  - Developed `Git` automation bot using `Bash` and `Cronjob` to synchronize different repository.
  - Maintained and provided support for the service deployment.
  - **Impact**: The product services has been deployed with less issues and approved time delivery. If there's any issues in production it took immediately hot fix response.

- **PT. Sirkel Kreasi Nusantara (IT Consulting)** — Remote
  Backend Developer (Full-time, Contractual) — *March 2021 - January 2022*
  - **Contributed to BDS (Branch Delivery Systems) Services for PT. Bank Aladin Syariah in Phase 1**:
  - Developed a RESTful API backend service using `FastAPI` and `PostgreSQL` based on asynchronous programming
  - Led backend team to follows internal project best practice and achieve better performance.
  - Initiated project architecture layer, singleton asynchronous HTTP request, database scheme, database migration using `Alembic`, and cloud storage from Google.
  - Handling deployment support and monitoring using `GCP` (Google Cloud Platform) and `K8s` (Kubernetes) from jumper host using `SSH` (Secure Shell) and `VPN` (Virtual Private Network).
  - Managed IAM (Identity Access Management) service using `Keycloak` and API Gateway using `KrakenD`.
  - **Impact**:
  - Achieved the highest individual project contributor with 986 commit on project repository
  - The backend service and scheduled service have been running to help their banking operational product with high scalability and high availbility for internal multi-role users.

- **ZeroInside (Individual Business)** — Remote
  Fullstack Developer (Freelance, Self-employed) — *May 2015 - Present*
  - **Software Developer**: Develop variety of web, mobile, desktop based applications using `Javascript`, `PHP`, `Python`, `Java`, `Ruby on Rails`, and `C#`.
  - **Hardware Developer**: Develop variety of cyber physical system that running on embedded system using `C++`.
  - **Research and Development**: Do research for edgy technology, learn, implement, and improve it.
  - **Impact**: More than 35 projects has been completed with successfully product delivery with positive feedback.

LATEST TECH PROJECTS

- **ZeroAPI Go** v0.0.1, March 2023

  A RESTFul API service for personal use that use `Go-lang` based on Clean Code architecture with `Gin`, `MongoDB`, `JWT` (Javascript Web Token) authentication middleware, unit test, and `Docker`. It has some features that integrated with OpenAI API and will add more feature for the next.

  Keywords : *RESTFul API, Go-lang, Gin, MongoDB, JWT, Docker, Unit Test, OpenAI.*

- **Golang Hands On** Work in Progress, Jan - March 2023

  Research oriented to self learn `Go-lang` from basic to advance with practice hands on from course. It include implements of concurrency, modules, unit test, context, embed, `MySQL` database, web, HTTP Router, JSON, RESTFul API, dependency injection, logging, generics, database migration, and validation.

  Keywords : *Go-lang, Concurrency, Modules, Unit Test, MySQL, Web, JSON, RESTFul API.*

- **ZeroTwitty Assistant** v0.3.3, February 2023

  My personal Twitter bot that my self love and it works well for me. It is developed using `Python` and deployed using `Docker`. It has some feature in version is 0.3.x, such as scheduled tweet and media for morning greeting with self care message, weather information, and play Spotify track with a lil bit songs features information.

  Keywords : *Twitter Bot, Python, Docker, Spotify*

- **GabungKelas - Platform Belajar dan Mengajar** v0.1.21-rc, July 2022

  An online course management system web application which build with MERN (`MongoDB`, `Express`, `Next.js` (`React.js Framework`), `Node.js`) stack under the ZeroInside. This system based on microservices that consist of API service, UI service, and DB service that running in `Docker`. The development is implemented using layered architecture, asynchronous, and ECMAScript 2015 for writing code style.

  Keywords : *Course Management System, Javascript, React, Express, MongoDB, Node.js, Docker, Layered Architecture, Asynchronous*

- **Smart Agriculture System** v1.7.2, December 2021

  Software and hardware for monitoring and maintaining vegetables plants to classify the bad plantation and take care of it such as watering automation, it is under the ZeroInside project. It provides end to end ML (Machine Learning) pipeline using `K-NN` and `Decision Tree` model. It started from developing embedded system using `RaspberryPi` with various sensors for collecting plant environment data into `MySQL` database, then build strong ML model, and create a RESTFul API using `FastAPI` for model deployment using `Docker`.

  Keywords : *Machine Learning, K-NN, Decision Tree, RaspberryPi, Python, MySQL, FastAPI, RESTFul API,*

- **Indonesia COVID-19 Analytics and Explorations** v3.3.1, October 2021

  This project is for exploring COVID-19 in Indonesia using data science approach. It extracted new active cases, still active cases, total confirmed cases, total cured cases, new cured cases, new dead cases, and total dead cases of all province in Indonesia. It's available in covid19.zeroinside.id, the dashboard was developed using `Dash` with `Python`

  Keywords : *Indonesia COVID-19, Data Science, Dash, Python*

- **GPON Network Monitoring System** v2.1.0, Agusturs 2020

  An information system web application and Telegram bot for monitoring GPON (gigabit ethernet passive optical network) device status and optical information at Telkom Akses Kepulauan Riau under the ZeroInside project. The web application was developed using `Laravel` with `MariaDB`, it provides management of devices and provide the data to the bot. The bot was developed using `Python` that integrated with Telegram API, and remote access to device.

  Keyword : *Information System Web Application, Telkom Akses, GPON, Telegram Bot, Laravel, Python, MariaDB.*

- **Pet Tracker and Finder** v1.5.0, July 2020

  A CPS (cyber physical system), that consist of `ESP32` pet wearable embedded device and Android mobile application that show real-time map of pet position. The system can estimate the distance between pet and user for indoor tracking using WiFI signal and outdoor tracking using GPS that communicate using pub-sub `Firebase`, also the buzzer will beep stronger if the pet is closer. It was developed using `Java` for mobile application and `C++` for cyber physical system.
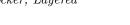
  Keywords : *Cyber Physical System, ESP32, Android, Firebase, Java, C++*

Honors and Awards

- Finalist on National IT Network System Administration (LKS SMK) [1] - June 2015, Jakarta.
- First Winner on North Sumatera IT Network System Administration (LKS SMK) - April 2015, Medan.
- First Winner on Medan IT Network System Administration (LKS SMK), - October 2014, Medan.
- Third Winner on North Sumatera IT Network System Administrator (LKS SMK)), - March 2013, Medan.
- First Winner on North Sumatera IT Network System Administrator (LKS SMK)), - March 2012, Medan.

Volunteer Experience

- **AIESEC - International Leadership Development** Petchaburi, Thailand
  Contributed in Sawasdee 33 Project by teaching local students english and math *June 2019 - July 2019*
- **Machine Learning Lecturer's Assistant** Bandung, Indonesia
  Graded weekly programming task IF39-05, IF39-12, and IF39-INT. *Feb 2018 - May 2018*
- **Aeromodelling Payload Telemetry Research Group Assistant** Bandung, Indonesia
  Conducted a research about drone, payload, and telemetry *Oct 2015 - Present*

Certification and Training

- **English**
- **TOEFL ITP** (533) issued by *ETS in December 2019*
- **English Proficiency Test** (527) issued by *Telkom University Language Center in September 2024*
- **Academic**
- **Potential Test** (512) issued by *BAPPENAS in December 2019*
- **Finalist in IoT Development Competitiin Technocorner 2019** issued by *Gadjah Mada University in March 2019*
- **Best Innovation of Technology Development in KRTI 2018** issued by *Kemenristekdikti in November 2018*
- **Participant of Technology Development in KRTI 2018** issued by *Kemenristekdikti in November 2018*
- **Exhibitors of Artial Fibrillation Detector Prototype based on Photoplethysmograph for Stroke Prevention 2018** issued by *Kemenristekdikti in October 2018*
- **Poksay APTRG as Best Design on Telkom University IoT Competition 2018** issued by *Telkom University in September 2018*
- **Poksay APTRG as Finalist on Telkom University IoT Competition 2018** issued by *Telkom University in September 2018*
- **Student Participant on International Collaborative Research of Hanbat National University and Telkom University 2018** issued by *Telkom University in July 2018*
- **Finalist on IoT Challenge Competition ITB 2018** issued by *Bandung Insititute of Technology in May 2018*
- **Instructor on Laboratory Training and Education 2018** issued by *Telkom University in March 2018*
- 3rd **Winner of Fixed Wing on KRTI 2017** issued by *Kemenristekdikti in October 2017*
- **Finalist of Fixed Wing on KRTI 2017** issued by *Kemenristekdikti in October 2017*
- 3rd **Winner of KOMBAT on KOMURINDO-KOMBAT 2017 issued by *LAPAN in September 2017***
- **Finalist on KOMURINDO-KOMBAT 2017** issued by *LAPAN in September 2017*
- **Workshop Participant on KOMBAT 2017** issued by *LAPAN in July 2017*
- **Finalist of Aeromodeling on Mechanical and Marine Engineering National Exposition 2016** issued by *Univesity of Indonesia in November 2016*
- **Instructor on Pemuda Informatika Mengajar 2016** issued by *Telkom University in October 2016*
- **Professionals** :
- **Pemrograman Go-lang : Pemula sampai Mahir)** issued by *Udemy in March 2023*
- **Go (Basic)** issued by *HackerRank in March 2023*
- **PHP Object Oriented Programming** issued by *Udemy in March 2023*
- **Rest API (Intermediate)** issued by *HackerRank in February 2023*
- **Data Analysis with Python** issued by *freeCodeCamp in February 2021*
- **Introduction to Git and GitHub** issued by *Coursera in February 2021*
- **Deep Learning Fundamentals** issued by *Cognitive Class in October 2020*
- **Industrial IoT Markets and Security** issued by *Coursera in September 2020*
- **Introduction to Cloud** issued by *Cognitive Class in September 2020*
- **Introduction to the Internet of Things and Embedded Systems** issued by *Coursera in August 2020*
- **Technical Support Fundamentals** issued by *Coursera in August 2020*
- **Programming for Everybody (Getting Started with Python)** issued by *Coursera in July 2020*
- **How to Make a Website with NameCheap Course** issued by *CodeAcademy in October 2016*
- **CCNA (Cisco Certified Network Associate)** issued by *Cisco in October 2014*

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[1]Challanges in IT Network System Administration are configured a Linux server and Windows client-server Network Architecture that implement iptables firewall, VPN, DNS-server, samba-server, DHCP-server, web-server, mail-server, proxy-server, and FTP server.