Rizki Rivai Ginanjar

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ABOUT

I'm a passionate Senior Artificial Intelligence (AI) Engineer and AI Product Manager with a proven track record of turning complex AI concepts into practical, impactful solutions. With deep expertise in AI system development, I excel at identifying areas for improvement and leading teams to implement innovative solutions that drive results. From crafting robust data pipelines and training or fine-tuning AI models to developing production-ready inference engines, I have hands-on experience across the entire AI lifecycle. My ability to bridge the gap between technical complexity and user-centric outcomes enables me to deliver AI solutions that are not only technically sound but also optimized for performance and efficiency, solving real-world business challenges.

KEY COMPETENCIES

- Artificial Intelligence: Machine Learning, Data Processing, Speech Signal Processing, Natural Language Processing (NLP), Text-to-Speech (TTS), Large Language Model (LLM), PyTorch, LightGBM, XGBoost, ONNX, Scikit-learn, Tensorboard, Jupyter Notebook, Pandas, DVC, Hugging Face, LangChain
- Software Engineering: Agile Methodologies, RESTful API, Linux, Git, Python, SQL, Gitlab CI, MatLab, Docker, Gradio, FastAPI, Google Cloud Platform (GCP), Microsft Azure, Amazon Web Services (AWS)
- **Product Management:** User & Market Research, Roadmap Development, Product Lifecycle Management, Scrum, Product Backlog Management, Product Development Supervision, Cross-functional Collaboration

PROFESSIONAL EXPERIENCE

- Led a cross-functional development team at Prosa TTS, guiding the creation of exclusive TTS models and advanced features for **330,000+ users** in the Indonesian market.
- Conducted user and market research, applying insights to product enhancements that increased Net Promoter Score (NPS) by 84 points.
- Created and managed comprehensive short- and long-term roadmaps.
- Leveraged stakeholder insights to prioritize product backlogs, utilizing Scrum methodologies for efficient backlog management.
- Led a cross-functional team of designers and engineers through the agile software development lifecycle, from planning to maintenance.
- Partnered with marketing to strategize announcements for new features, resulting in a 23% increase in user acquisition over eight months.
- · Analyzed product metrics using BI Dashboard (Apache Superset) to identify improvement areas.
- Worked with the support team to address and resolve user complaints.
- Created and organized product documentation, including PRDs, feedback, and reports, which streamlined cross-functional communication.

- Led a team of AI engineers in TTS and paralinguistics, overseeing AI model planning and technical guidance across development phases.
- Defined the annual research roadmap and set objective key results (OKRs).
- Led the full cycle of TTS AI voice model development by leveraging NLP techniques to preprocess Indonesian text and speech datasets; trained models from scratch or fine-tuned pretrained models; and prepared these models for storage in a cloud environment, producing a total of 10 exclusive, highquality TTS AI voice models for the Indonesian language available in our SaaS-based product (Prosa TTS).
- Engineered robust, production-ready AI inference engines and wrapped the library as a Python package, ensuring seamless package maintenance.

- Developed dataset and model version management systems using data version control (DVC).
- Developed a FastAPI-based application as a backend service for an internal reporting website, handling data transactions.
- Developed AI voice conversion models, expanding our voice offerings and enabling the creation of easily customizable TTS voice models.
- Developed Text Cleaner, a library leveraging NLP techniques for normalizing TTS input text, ensuring better pronunciation accuracy of the synthesized speech.
- Established and maintained standard operating procedures (SOPs) for the entire internal development process, including dataset processing, model training or fine-tuning, and dataset and model versioning.

- Developed a combination of transformer and generative adversarial network (GAN)-based TTS models
 that first generate speech features and then synthesize raw speech signals based on those features.
- Explored various TTS model training toolkits to identify the best toolkits and architectures for developing TTS Al voice models.
- Explored various TTS AI model optimizations for a more efficient inference process (ONNX, OpenVINO, TensorRT).
- Developed COVID-19 diagnosis system based on cough recordings.
- Developed emotion classification system based on speech signals.

Networked System Laboratory

Full-Time Researcher

- Conducted pioneering research on integrating machine learning into wireless communication systems.
- Proposed novel ideas, designed systems, assessed performance, and documented findings in technical papers.
- Presented research results at domestic and international conferences and submitted a comprehensive version to international journals.

EDUCATION

Kumoh National Institute of Technology (KIT)

Graduate School of IT Convergence Engineering (M.Eng)

GPA: 4.38 / 4.50

<u>Thesis</u>: Low-Complexity and Fast UAV-Based Node Localization utilizing Shallow Neural Network <u>Awards / Honors</u>: Brain Korea 21 Scholarship Awardee

Telkom University

Department of Telecommunication Engineering (B.Eng)

Bandung, Indonesia

Agustus 2013 - January 2017

<u>GPA</u>: 3.83 / 4.00

<u>Thesis</u>: Optimization Analysis of Audio Watermarking for Reduced Arc M-Ary Phase Shift Keying (MPSK)

Technique using Genetic Algorithm Awards / Honors: Cum Laude Graduate

PROJECTS

- Radio Republik Indonesia (RRI), Custom TTS Voice Model Development (2024)
- Transjakarta, Custom TTS Voice Model Development (2024)
- Trans Semarang & Trans Jogja, Al Bus Announcer System (2023)
- Alterra, Custom TTS Voice Model Development (2023)
- Kalbe Farma, Digital Transformation Program, Data Science Mentor (2022)
- Kampus Merdeka MBSI, Al Engineering Mentorship (2022)
- Elex Media, TTS for Audiobook (2021)
- COVID19 Detection System Development Based On Cough Recordings (2021)
- VoiceBot BRIN, AI Virtual Assistance System Development (2020)

CERTIFICATIONS

• Fundamental Leadership Program, Dale Carnegie Training, 2022