

Alex Tio Suryapranata

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SUMMARY

Human-Computer interaction researcher and software developer with hands-on experience in full-stack, game development, Linux IT administration, and machine learning. Actively seeking roles as full-stack & DevOps engineer.

EDUCATION

M.S. Computer Science

Aug. 2022 - Aug. 2025

Korea Advanced Institute of Science and Technology (KAIST)
(1 year as Korean language student at Daegu University)

B.Sc. Electrical and Computer Engineering *Magna Cum Laude*

Aug. 2013 - Dec. 2017

The University of Texas at Austin
GPA: 3.96 / 4.00

SOFTWARE PROJECTS

Memory Garden

- *Tools used: Unity, React, Typescript, WebGL, AWS (Ampify, S3)*
- Built and deployed a photo-sharing application in the form of a cultivation & exploration-focused cozy game.
- Implemented frontend client as progressive web app and deployed backend server using Amazon Web Services
- Validated Memory Garden's positive emotional impact through an IRB-approved user study with 30 participants

[KIXLAB website](#)

- *Tools used: NextJS, Typescript, Github Actions*
- Led a team of 6 contributors for the redesign and deployment of the website for Kaist Interaction Lab
- Wrote the original CI/CD pipeline and documentation currently used by over 20 contributors

Machine Learning for 3D Data

- *Tools used: Pytorch, TensorFlow*
- Built neural networks based on landmark ML papers, including PointNet (CVPR), NeRF (ECCV), and DDPM (NeurIPS)

WORK EXPERIENCE

STEM Tutor & Fitness Coach, Self-employed

Jan. 2020 - Aug. 2022

- Tutored clients aged 13-49 in STEM subjects and helped develop their English proficiency during the COVID-19 pandemic
- Improved the health and fitness of clients during lockdown periods through daily workouts and mindfulness sessions
- Built client self-confidence through empathetic, motivational coaching and holistic development strategies

Fulbright Scholar, Fulbright Scholar Program

Jul. 2018 - Dec. 2020

- Prepared and taught English lessons for total 1000+ students at Sanae elementary school and Namka high school
- Introduced a diverse curriculum focusing on English language in the context of culture in western society
- Volunteered during Korean Kids and Orphanage Outreach Mission (KKOOM)'s annual holiday events

NSF Cybersecurity Student Researcher, Old Dominion University

Jun. 2017 - Aug. 2017

- *Tools used: Bash, Python, Docker*
- Contributed to the development of Cyber Risk & Scoring Mitigation (CRISM), a network security evaluation tool
- Automated the retrieval of vulnerability and patch information from the National Vulnerability Database and their simulated effect on the success probability of a network attack graph

Student Researcher, Texas Advanced Computing Center (TACC)

Jun. 2015 - Aug. 2015

- *Tools used: C/C++, ROSE Compiler, Clang Compiler*
- Worked closely with TACC staff on enhancing fault tolerance in high-performance computing applications.
- Developed a transpiler integrating checkpointing procedures into C/C++ code using the experimental ROSE compiler framework

AWARDS

- Recipient, Global Korea Scholarship
- Nominee, Cockrell School of Engineering Outstanding Scholar Award
- Recipient, Unrestricted Endowed Presidential Scholarship
- Recipient, Distinguished Presidential Achievement Scholarship