

# Davin Neilson

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Third-year Computer Science student at Binus International University specializing in software development and AI. Proficient in Python, Java, JavaScript, React, Node.js, and SQL, with hands-on experience in developing software and applying machine learning to real-world problems.

## SKILLS

**Frameworks:** Flutter, React, MySQL, FastAPI, React Native

**Programming Languages:** Python, Javascript, HTML5, CSS3, Typescript, Dart, Java

## WORK EXPERIENCE

### Frontend Developer

Apr 2024 - Oct 2024

#### JAM Official Internship

Jakarta, Indonesia

- Designed and implemented core features of the app, including a questionnaire system, 25 reusable components, and 20 dynamic pages using React and Vite.
- Integrated Google OAuth for secure authentication and Google services like Calendar for enhanced functionality.
- Managed integration of 20 API endpoints, ensuring smooth communication between frontend and backend to deliver dynamic app features.
- Contributed to a pre-registration campaign that attracted 54 users, showcasing early interest in the app.

## PROJECTS

### Improving Classification Models by Finetuning Autoencoder

Jun 2024 - Present

- Conducted a research to improve and compare X-ray classification models fine-tuned with autoencoder.
- Applied several data pre-processing techniques for X-Ray Images to enhance the model's performance, including data augmentation.
- Implemented regularization techniques such as using a dropout layer and modifying both model structure to match the image size, enabling compression to the latent dimension.

### Leafty

Feb 2024 - Jun 2024

- Managed a diverse team of 8 including 7 developers and 1 designer, overseeing project execution, ensuring adherence to timelines, and fostering continuous innovation.
- Assisted and directed the Frontend team, resulting in creating over 50 pages and over 100 components with exact style given from the prototype, including routing.
- Assisted and directed the Backend team to develop 67 CRUD endpoints, design 10 database tables with relationships and constraints, and implement secure authentication, authorization, and session management from scratch.
- Created Low-Fidelity design for 30 essential pages in helping the designer to design the High-Fidelity design for Leafty.

### Applying Machine Learning to Transform Telco Advertising in Indonesia

Sep 2023 - Jan 2024

- Leveraged Python, scikit-learn, and pandas to analyze telco advertising data in Indonesia, uncovering insights to optimize ad network selection.
- Cleaned two datasets from a company with 50,000 rows, addressing missing values, outliers, and inconsistencies.
- Developed machine learning models, optimizing performance with an R2 score of 82%.

## ORGANIZATIONAL & VOLUNTEER EXPERIENCE

### Teaching Assistant

Sep 2024 - Present

#### Bina Nusantara

- Teaching 21 first-year students in the Human-Computer Interaction course, covering the fundamentals of HTML, CSS, and JavaScript.

### Research Assistant

Jun 2024 - Nov 2024

#### Bina Nusantara

- Contributing to an AI Medical Research Project, in charge of classifying X-Ray Images using autoencoder and classification model

### Technical Developer

Sep 2023 - Sep 2024

#### Google Developer Student Club

- Organized a virtual seminar on developing a simple shopping application using Dart and Flutter, reaching an audience of 100 individuals.
- Creating and Editing Video for technical tutorials and animations, able to attract 8,000 viewers for three tutorial videos.

## PUBLICATIONS

### Using Machine Learning for Shaping the Future of Advertising for Telco Industry in Indonesia [🔗 on IEEE](#)

Nov 2024

This paper uses machine learning to optimize advertising efficiency, highlighting key revenue drivers and the impact of targeted ad spend and strategic placement in Indonesia, with CatBoost achieving an R2 score of 0.82 and RMSE of 11,966 USD.

## EDUCATION

### Bachelor of Computer Science

Sep 2022 - Present

Bina Nusantara International University