LUKE THILGEN

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PROFESSIONAL SUMMARY

Aspiring and innovative Computer Science student at SFSU who loves to program, solve problems, and work in teams. Strong ability to apply critical thinking and programming skills to address complex challenges. Outstanding listening, verbal, written, and communication skills, strong attention to detail and prioritization skills, ability to work under pressure, and proficiency in full-stack technologies.

EDUCATION

San Francisco State University
Bachelor's, Computer Science

- Analysis of Algorithms
- Natural Language Technologies
- Software Programming
- Web Software Development
- Analysis of Algorithms
- Software Engineering
- Programming Methodology
- Data Structures
- Computer Networks
- Operating Systems

PROFESSIONAL EXPERIENCE

StudentConnect **San Francisco, CA, USA**
Back-End Lead *January 2024 - May 2024*

- Led the back-end development team in designing and implementing the server-side architecture for the "StudentConnect" platform, enhancing real-time communication and student collaboration.
- Ensured seamless integration of AWS cloud services with a MongoDB database, optimizing data storage, retrieval, and overall performance.
- Developed RESTful API endpoints using Node.js and Express.js to handle user authentication, data management, and secure front and backend interactions.
- Collaborated closely with the front-end team to align API endpoints with user interface requirements, resulting in a smooth and cohesive user experience.
- Implemented advanced analytics and machine learning tools for data-driven insights into user activity, leveraging cloud computing for scalability.

PROJECTS & OUTSIDE EXPERIENCE

NeuroLearn - *Link to project* **Oakland, CA, USA**
Main Programmer *November 2024 - Present*

- NeuroLearn is an innovative Python-based project that combines neuroscience and technology to provide an interactive learning experience about the human brain
- The project serves as both an educational tool and a platform for exploring brain structures and functions through advanced visualization and simulations
- It utilizes tools like Plotly and Trimesh to create an interactive 3D model of the brain, enabling users to rotate, zoom, and explore distinct regions highlighted with unique colors for easy identification, will offer detailed information on brain regions, including lobes, cortical areas, and subcortical structures, along with their functions and roles in neurological processes, and will include neural network simulations to visualize and explain information flow across neurons and brain pathways.

SKILLS

Programming Languages: Python, Java, HTML/CSS, JavaScript, C/C++, R, TypeScript
AI/ML Technologies: Tensorflow, Pytorch, Natural Language Processing (NLP)
Cloud Technologies: AWS, EC2, S3, Lambda, Google Cloud Platform, Git, GitHub, GCP, Slack, Snowflake, Terraform (IoC)
Databases: MongoDB, SQL, MySQL

Software Development Tools: VSCode, PyCharm, Google Colab, Linux/Unix, Microsoft Azure, CLI, skilled in CI/CD, Spark, Tableau