

Luke Tu

314-463-7970 | luke_tu@brown.edu | <https://www.linkedin.com/in/luketu>

EDUCATION

Brown University

BS in Computer Science, Applied Mathematics

Providence, RI

Expected 05/2027

- Activities: Outreach Lead (Brown Entrepreneurship Program), Web Developer (Full Stack at Brown)
- AIME Qualifier, Presidential Scholar Nominee, National Merit Finalist, Jane Street Estimathon (2nd Place)
- 4.0 GPA, 36 ACT

EXPERIENCE

Artificial Intelligence / Machine Learning Intern

June 2024 – September 2024

Washington University School of Medicine

Saint Louis, MO

- Led design and development of a tool that classifies involuntary muscle contractions using machine learning
- Conducted extensive industry research on existing technologies and approaches to aid project design and scale
- Collaborated with Professors, Doctors, and PhD students, ensuring development aligns with clinical needs
- Integrating mappings to differentiate between anterior, posterior, fundus, and cervix areas, enhancing precision
- Leveraging Python and MATLAB and libraries such as NumPy, SciPy, Pandas, and TensorFlow to develop and deploy the CNN, ensuring efficient model training and evaluation through proper data cleansing and processing
- Managed timelines and set project checkpoints, ensuring milestones were achieved on time and within scope

Research Assistant

November 2023 - January 2024

Donald Danforth Plant Science Center

Saint Louis, MO

- The Danforth Center is the largest independent non-profit institute dedicated to plant science in the world
- Researched circadian lipid production, differences in structure, and phosphorous efficiency in the Arabidopsis plant
- Collaborated with Native Chinese researchers to improve clarity in scientific communication and software usage

Strategy and Operations Intern

April 2023 – June 2023

Arch Grants

Saint Louis, MO

- Formulated growth strategies to improve outreach after analyzing social media performance across 4 platforms
- Developed and helped implement a new weighted startup evaluation methodology used on 1682 case studies to select top-performing startups by cross-comparing assessments and ratings by 13 past founders and executives
- Analyzed historic data to determine up-to-date activity and engagement for 3050+ current and former partners

Server

June 2023 - August 2023

Uncle Julio's

Frontenac, MO

- Was the youngest server in the restaurant after quickly being promoted from server's assistant

SKILLS AND INTERESTS

Programming Languages: Java, Python, JavaScript, HTML/CSS, SQL, MATLAB

Tools: React/React Native, Next.js, Figma, Google Suite, Adobe Creative Suite, LaTeX, Excel, Powerpoint

Interests: Cooking, Following Sports, Golfing, Basketball, Soccer, Weightlifting, Swimming, Traveling, Drawing

PROJECTS AND OTHER

Modify

Currently Building

React, Typescript, Tailwind CSS, Next.js, PostgreSQL, Supabase, Stripe API, Spotify API

Full-Stack Application

- A full-stack Spotify inspired website with full audio upload/playback and Stripe API integration
- Currently implementing playlist maker feature similar to a tinder for songs with plans to make a mobile app version

Othello AI Player

2023

Java, JavaFX, Figma

Object Oriented Programming, Artificial Intelligence, User Testing

- Developed Othello AI Player with 3 different skill levels using statistics, game theory, and algorithmic searching
- Devised a robust MiniMax Algorithm with heuristic evaluations to calculate optimal moves, significantly enhancing AI performance