


# SHIVA A. NEELAKANTAN

## Full Stack Software Engineer

🏠 106 Fox Hunt Trail, Barrington, IL 60010 📞 +1 (331) 645-0958 ✉️ shiv.neel1622@gmail.com  
🌐 linkedin.com/in/shiva-neelakantan 🐙 github.com/shiv-neel 🌐 shivneel.vercel.app


## EDUCATION

**Iowa State University (Honors College)**  
B.S. Computer Science – 3.8 GPA

August 2019 - December 2023  
Ames IA


- **Minors** Data Science, Economics
- **Relevant Coursework** OOP, Data Structures, Discrete Mathematics, Algorithms, Machine Learning, Theory of Computing, Web Development, Database Management Systems, Advanced Programming Techniques

## WORK EXPERIENCE

**Workiva**  
Intern – Full Stack Software Engineer


May 2022 - Present  
Ames IA

- **Developed** six data models and reusable components in Workiva's open-source Dart-lang React wrapper for internal implementation and consumption within four of Workiva's SaaS microservices
- **Collaborated** with UX team by translating their Figma mockups into scalable, stateful component trees to adopt a more modern design language for two of Workiva's most profitable solutions
- **Implemented** Redux middleware in legacy code to offer predictable state management patterns for experiences

**Next Level Analytics**  
Intern – Full Stack Software Engineer

January 2022 - June 2022  
Ames IA


- **Engineered** three data pipelines via automated python scripts to acquire serialized JSON from various social media REST APIs and execute on a time-triggered serverless function via Microsoft Azure
- **Modeled** dynamic time-series plots in React to communicate real-time analytics of a user's social media influence
- **Designed** eight NoSQL database schemas in Firestore to efficiently store and organize a user's data models

**Shiv Neel Private Tutoring**  
Self-Employed – Machine Learning/AI Instructor

May 2021 - Present  
Virtual


- **Spearheaded** private one-on-one virtual tutoring courses for nine different students grades 8-12 in Python to educate them on computer science principles, ranging from basic programming to game design and AI
- **Collaborated** with parents to create tutoring sessions appropriate for students' learning styles and needs

## PERSONAL PROJECTS

**ATOMIC (Typescript, React, PostgreSQL)**  
Full Stack Web Application

May 2022 - Present  
[atomic-nine.vercel.app](https://atomic-nine.vercel.app)

- **Innovated** a unique self-improvement system intended to improve one's personal habit formation techniques
- **Implemented** modern web features such as client-side memoization, CRUD API routes, and user authentication
- **Applied** domain knowledge from two psychology books on motivation theory into application's architecture

**Chess AI Engine (Python)**  
Artificial Intelligence Application

July 2022 - August 2022  
[github.com/shiv-neel/chess-engine](https://github.com/shiv-neel/chess-engine)

- **Constructed** a minimax algorithm to compute a chess position's best move by searching up to five moves ahead
- **Optimized** search time to evaluate position within 10 seconds via alpha-beta pruning to eliminate unnecessary depth-first-search traversals at each layer of the search tree

## SKILLS & INTERESTS

**Languages** JavaScript, Typescript, Dart, Python, Java, Kotlin, C/C++, HTML, CSS, R, SQL

**Databases** MySQL, PostgreSQL, MongoDB, CosmosDB, Firestore, GraphQL, Neo4j

**Tools and Frameworks** NodeJS, ReactJS, Redux, NextJS, TensorFlow, Keras, Git, AWS, Azure, Figma, Jira

**Extracurriculars** Formula SAE, Algorithmic Trading Club, Chess Club

**Hobbies** Guitar, Chess, Reading, Sudoku, Hip-Hop Music, Anime, International Cuisine