BO BONNING

PROFESSIONAL SUMMARY

Bo Bonning, a Ph.D. holder in cryogenic electronics with a robust scientific research background, transitioned his expertise into software engineering through online coursework, including Harvard's Introduction to Computer Sciences, CS50, sparking a deep passion for programming. Completing General Assembly's Software Engineering Immersive and Cook Systems' Fast Track programs, he solidified his skills in Java, JavaScript, and full-stack development, demonstrating a commitment to continuous learning. Bo's diverse skill set, encompassing Angular, React, and HTML/CSS, coupled with his adaptability and eagerness to excel, positions him as a versatile web developer ready to contribute to dynamic projects with a fervor for innovation and collaboration.

TECHNICAL SKILLS

Programming: Java, JavaScript, Angular, React, Python, Django, Flask, C, C#, TypeScript, HTML5, CSS3, SQL, Spring, Spring Boot, JDBC, Jackson, JPA, jQuery, Node, webpack, Babel, Maven, npm
Software: Eclipse, VS Code, Git, GitHub, cmder, pgAdmin, Postman, Docker
Databases: PostgreSQL, MongoDB, SQLite
Operating Systems: Windows, Linux Ubuntu

PROFESSIONAL EXPERIENCE

COOK SYSTEMS – Memphis, TN   **09/23 – Present**
FastTrack Developer

Backend for Twitter Platform
- Engineered the backend architecture for a social media platform in Java and Spring to construct an array of RESTful endpoints for tweets, hashtags, mentions, etc.
- Spearheaded the role of Git Master, orchestrating version control and enabling collaboration within the team, fostering consistency and efficiency in the project lifecycle.
- Leveraged a tech stack comprising Java, Spring, and PostgreSQL in an Eclipse environment, optimizing the development workflow while utilizing pgAdmin for efficient database administration.
- Tested, troubleshot, and debugged API functionality in Postman, ensuring adherence to project requirements and smooth operation of the social media platform.

Environment: Java, Spring, Hibernate, Eclipse, Maven, PostgreSQL, pgAdmin, jdbc, Postman

Frontend for Spotify Audio Guessing Game
- Developed the front-end architecture for an engaging audio guessing game, utilizing TypeScript and Angular to create a seamless and interactive user experience.
- Collaborated in a team of two to integrate various endpoints from the Spotify API, enabling dynamic and real-time audio content for the guessing game.
- Ensured effective communication between the frontend and the API, facilitating a smooth flow of data and enhancing the overall responsiveness of the application.
- Implemented and tested diverse features within the Angular framework, ensuring a visually appealing and intuitive interface for users participating in the audio guessing game.

Environment: Typescript, Angular, Node.js, HTML, CSS, Git

Full Stack Company Management Application
- Catalyzed frontend development for a versatile company management application, improving team collaboration and operational efficiency.
- Integrated frontend and backend seamlessly, enabling real-time data exchange and a cohesive user experience for comprehensive company oversight.
- Developed an intuitive interface using TypeScript and Angular, providing an optimized platform for effective team communication and streamlined project and resource management.
- Contributed significantly to agile development methodologies, actively participating in planning, stand-ups, and retrospectives throughout the project lifecycle.

Environment: Java, Spring, Hibernate, Eclipse, Maven, PostgreSQL, pgAdmin, Postman, Typescript, Angular, Node.js, HTML, CSS, Bootstrap, Git

General Assembly – Remote   **04/23 – 07/23**
Software Engineer Fellow
- Demonstrated independent problem-solving and creativity by developing several personal projects, showcasing a proactive approach to addressing challenges.
- Showcased skills in teamwork and collaboration by contributing to the completion of full-stack applications, fostering a productive and cohesive team environment.
- Furthered skills in Javascript, Python, React, and full-stack development by actively participating in the Software Engineering Immersive program, enhancing proficiency and knowledge in diverse technical domains.

Tennessee Technological University – Cookeville, TN   **08/15 – 10/20**
Graduate Research Engineer
- Contributed valuable insights and findings to the scientific domain by publishing research papers in the Journal of Cryogenics, enriching the collective knowledge base.
- Enhanced the scientific community by presenting research findings at national conferences, showcasing scientific knowledge and communication abilities.
- Spearheaded the planning and execution of vital research initiatives by orchestrating scientific experiments in the Cryogenic Electronics Laboratory.
- Ensured a detailed record of research methodologies and results by composing comprehensive documentation of experimental findings, facilitating further analysis and reference.

Oak Ridge National Laboratory – Oak Ridge, TN   **05/16 – 08/16**
Battery Research Engineer Intern
- Showcased dedication and commitment to academic and research excellence by completing the Distinguished Scholars Program in collaboration with Volkswagen.
- Contributed to advancements in battery research by constructing and studying lithium-ion batteries, playing a pivotal role in the research and development of innovative energy solutions.
- Highlighted the practical implications of conducted studies by presenting research findings at Volkswagen Headquarters, demonstrating effective communication and presentation skills in a professional setting.

PERSONAL PROJECTS

solve. – Problem solving application
- Engineered a comprehensive MERN-stack application (MongoDB, Express, React, Node.js) and deployed it using Heroku, ensuring robust performance and accessibility.
- Integrated the power of the OpenAI API and OCR API to facilitate problem-solving capabilities using image inputs, and further leveraging AWS S3 for secure and efficient cloud storage solutions.
- Implemented JWT-based authentication for enhanced security while employing Tailwind to achieve a polished and intuitive user interface.
- Utilized RESTful architecture to ensure efficient communication between server and client, optimizing data exchange and overall system performance.

Environment: Javascript, MongoDB, Express, React, Node.js, OpenAI, AWS, JWT, Tailwind

DocuChat – Chat with documents application utilizing LangChain
- Developed a robust MERN-stack application (MongoDB, Express, React, Node.js) and seamlessly deployed it using Heroku, ensuring scalability and accessibility.
- Leveraged various Language Models (LLMs) such as GPT-3.5 and models from HuggingFace integrated via LangChain, enriching the platform's chat functionality with advanced natural language processing capabilities.
- Implemented a sophisticated document management system by utilizing AWS S3 for cloud-based storage and Docker for local document handling, ensuring efficient and flexible document operations.
- Employed a RESTful architecture to optimize communication between various system components, enhancing overall system performance and scalability.

Environment: Javascript, MongoDB, Express, React, LangChain, OpenAI, Docker, AWS

EDUCATION

Cook Systems FastTrack Java Program – Memphis, TN   **09/23 – Present**
Concentrated Java Frameworks and developer tools training

Tennessee Technological University – Cookeville, TN   **08/15 – 10/20**
Doctor of Philosophy: Chemical Engineering

Tennessee Technological University – Cookeville, TN   **08/10 – 08/15**
Bachelor of Science: Chemical Engineering
Bachelor of Science: Biochemistry
Bachelor of Science: Cellular & Molecular Biology