# Alexander Chen

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#### Education

#### Seattle University

September 2022 - June 2024

Bachelor of Science in Computer Science (GPA: 3.62 / 4.00)

Seattle, WA

• Relevant Coursework: Data Structures and Algorithms (C++), , Computer Architecture, Operating System, Software as a Service (Full-stack), Mobile Development (Flutter), User Experience, Big Data Analytics

## Experience

**Future Arts** 

September 2023 - June 2024

Software Engineer

Seattle, WA

- System Design/Development: Developed an automated web scraping and data processing system for an arts NGO, utilizing AWS serverless architecture, NLP, and custom algorithms to extract, analyze, and structure artist information from diverse websites into an artists database
- Cloud Integration: Architected a full-stack solution integrating AirTable, AWS services (Lambda, S3, API Gateway, EventBridge, Step Functions), and custom Python scrapers with BeautifulSoup and SpaCy NLP libraries.
- Data Normalization: Cleaned multi-source, multi-format data from various linked websites of artists and social media platforms by building a compatible data pipeline. Deployed the pipeline as an automated process on AWS services.
- Project Outcome: Increased artist information accuracy to 80-90% and reduced manual data entry by 80%, . Lowered costs by 70% through the pay-per-use model of AWS Lambda services. Presented the outcomes of the automated system, which is now in use to recruit more artists contactlessly into the database.

## **Seattle University**

January 2024 - April 2024

Teaching Assistant - Security in Computing

Seattle, WA

- Security Knowledge: Assisted in the instruction of a "Security in Computing" course, focusing on principles and practices of computer security, including cryptography, network security, and secure coding practices. Facilitated discussions on current trends and emerging threats in cybersecurity, encouraging student engagement and participation.
- Security Resolutions: Collaborated with the course instructor to design and implement practical lab exercises that simulate real-world security challenges.

Bilimetrix USA

June 2023 - August 2023

Software Engineer Intern

Seattle, WA

- System Improvement: Collaborated on a C# .NET web application for medical image judging, utilizing Razor Pages and Git for version control in an Agile environment. Developed and implemented advanced image processing algorithms to detect issues such as image rotation, color imbalance, and brightness problems, enhancing the accuracy of medical image assessment.
- UI Redesign: Designed and implemented dynamic user interface components, improving the judging interface and enhancing overall application accessibility and cross-browser compatibility.
- Project Outcome: Contributed to data model redesign for ImageSeverity and ResultImage, while refactoring the testing suite to improve code organization and reduce redundancy. Achieved 100% code coverage through comprehensive unit testing, made over 20 Git commits, and reduced page load time by 30%, significantly improving the application's reliability and performance.

# **Projects**

## Panda-S E-Commerce Web Application | HTML, CSS, TypeScript

• Full-Stack Innovation: Developed a comprehensive e-commerce platform utilizing REST APIs, integrating advanced product and user management features. Utilized HTML, Bootstrap, Express.is, Angular, is, TypeScript, and MongoDB to ensure efficient operations through NoSQL databases and deployed on Azure Services.

## **Eco-Panda Mobile App** | Flutter, Dart, SQL, Javascript

 Mobile Development: Advanced development and testing of a mobile application focused on carbon footprint awareness. Utilized Flutter for Android/iOS to deliver an intuitive UI/UX design on all platforms, seamless backend integration, efficient data management, and deployment utilizing Google Firebase to achieve performance optimization.

#### Technical Skills

Languages: C++, C#, Python, Java, Flutter, MySQL, HiveQL, Javascript, Typescript, HTML/CSS, F# Framework/Tools: Bootstrap, Dart, Node.js, ASP.NET, React, Express, Angular, Google Firebase, AWS, Azure, Docker, Git Databases/Big Data/DL:: MongoDB, Spark, Hadoop, Hive