

Chang Min Bark

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EDUCATION

Bucknell University

Lewisburg, PA

B.S. in Computer Science and Engineering w/ Business Management, Math Minor

Expected: 2025

Relevant Coursework Calculus 2,3; Data Structures & Algorithms; Software Engineering & Design; Physics 1,2; Statistics & Engineering; Linear Algebra; Discrete Structures; Intro to Android Development (CodePath)

TECHNICAL SKILLS

Languages: Java, Python, JavaScript/TypeScript, Kotlin, C++, R, XML, HTML/CSS

Frameworks: React, Node.js, Express.js, Material-UI, Spring Boot, JWT, Scrum/Agile, MVC

Developer Tools: Git, GitHub, Postman, MongoDB, VS Code, Visual Studio, PyCharm, IntelliJ, Jupyter Lab, Android Studio, Tableau, Anaconda (WIP)

Libraries: pandas, NumPy, Matplotlib, XlsxWriter, PyTorch, Puppeteer, Cron, scikit-learn (WIP), TensorFlow (WIP)

EXPERIENCE

Neural Network Researcher at Advanced Analytics Lab (funded by NSF)

Sept. 2023 – Present

Bucknell University/NSF

Lewisburg, PA

- Developed and fixed Machine Learning model (convolutional neural network) on Jupyter Lab using PyTorch that is capable of rudimentary image processing (9x9 pixels)
- Extracted and organized **100+** parameters of convolutional layers and linear layers of a CNN after 25 training epochs to evaluate/monitor Machine Learning training

Fullstack Developer

January 2023 – Present

TEDxBucknellUniversity

Lewisburg, PA

- Collaborated with website team to develop a fully responsive website for TEDxBucknell events such as the 4+ talks given every year and attended by **1,000+ people**, resulting in annual sales of more than **\$5,000** and a **20%** increase in event engagement over the past year.
- Created the middleware and authentication/authorization routes for admin login/management system
- Built the RESTful APIs and routes that let admins log into the website to update information

PROJECTS

Destinex | MongoDB, Express, React, Node, Material-UI, Scrum/Agile, Git, JWT, Postman

August 2023 – Present

- Led a cross-functional team of 4 as Scrum Master, orchestrating sprints and ensuring adherence to Agile methodologies while overseeing **500+** commits and **50+** merge requests, resulting in timely project completion and delivery
- Designed and implemented middleware, models, MVC architecture, and API endpoints, resulting in a **30%** improvement in data processing speed and a **25%** reduction in server response time, enhancing the website's performance and scalability
- Helped individuals living abroad connect with their loved ones by sending gifts/services internationally

Company Sentiment AI | Node, Express, Puppeteer, Cron, AI/Classification Models, Python

July 2023 – Present

- Developed an automated web-scraper using cron and puppeteer that scrapes over 20+ headlines from a company's Google News page
- Parsed with regex and analyzed the data to determine whether the media's sentiment towards a company was positive or negative
- Utilized and tested AI/classification models like SVC, KNearestNeighbors, DecisionTree, RandomForest, NLP, and Deep Learning Neural Network to see which model was the most accurate

Olah Website | MongoDB, Spring Boot, React, Material-UI, Git, Postman, JWT

June 2023 – August 2023

- Constructed a fully responsive social media website that lets sports lovers create/join events and see their ranking
- Developed an authentication/authorization system using JWT
- Wrote over **5,000** lines of code that were published to GitHub

HONORS

Dean's List, Google Development Student Club Officer, Badminton Club President, Fremont Scholar