Chang Min Bark

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github.com/changminbark | linkedin.com/in/chang-min-bark-0091b7b9/| Lewisburg, PA

Education

Bucknell University, College of Engineering (Lewisburg, PA) Expected Graduation May 2026
Bachelor of Science in Computer Engineering | Engineering GPA: 3.90/4.0 | Dean's List all semesters

Bucknell University, Freeman College of Management (Lewisburg, PA)
Bachelor of Management for Engineers | Cumulative GPA: 3.97/4.0 | Dean's List all semesters

- Relevant Engineering Coursework: Data Structures & Algorithms, Software Engineering & Design, Statistics & Engineering, Computer Systems, Computer Networks & Security, Programming Language Design, Algorithms Design & Analysis, Linear Algebra, Discrete Structures, Calculus (2,3), Physics (1,2)
- Relevant Management Coursework: Accounting, Corporate Finance, Leadership Theory, Business Ethics, Marketing, Management of Organizations, Organizational Forms Strategy & Structure
- Technical Lead for Google Developer Group on Campus Bucknell
- Badminton Club President
- Fremont Scholarship Recipient
- Member of Alpha Lambda Delta, Tri-Alpha (First Gen Honor Society), Korean Cultural Association, Global Student Council

Experience

Hangry Indonesia, Remote/Jakarta (Startup) May 2024 - August 2024
Backend Engineer Intern

- Improved push (FCM), SMS, email notification system's efficiency by **90%** by rewriting the process in Golang, implementing concurrent processing, and optimizing existing workflows to enhance overall stability and reliability
- Replaced RabbitMQ by creating a message queue using redis streams that is "at-least-once", persistent, and allows for consumer groups, cutting down cloud hosting costs by **70%** and making the service more self-sustaining
- Integrated ChatGPT-4o to scan and verify supply orders, automating the process and reducing the finance team's order checking time by **75%**, thereby increasing overall operational efficiency (**4 days -> 1 day**)

Google Summer of Code/MIT App Inventor, Remote/US (Open Source) May 2024 - August 2024
Open Source Developer (Frontend and Application Development)

- Integrated the new IDraggable interface into Blockly's multi-select plugin, which resulted in a more maintainable codebase and eliminated the need for monkey patches
- Ensured seamless operation by cross-testing the updated multi-select plugin with 6+ existing Blockly plugins, identifying and resolving conflicts to maintain overall system stability
- Produced documentation outlining the implementation process and bug resolutions to facilitate future improvements and maintenance for the open-source community/mentor

Bucknell University Advanced Analytics Lab, Lewisburg/US (NSF-backed) September 2023 - May 2024
Machine Learning (Neural Network) Researcher

- Developed a Convolutional Neural Network (CNN) on Jupyter Lab using PyTorch that is capable of image processing
- Implemented Adam Optimization Algorithm in Excel to replicate CNN training and analyze model progression

Projects **Other relevant personal projects available on Github*

Destinex (Startup) August 2023 - December 2023
MongoDB, Express, React, Node, Material-UI, Scrum/Agile, JWT

- Led a cross-functional team of 4 as Scrum Master while overseeing 500+ commits and 50+ merge requests, resulting in timely completion and delivery of project that allows people to order deliveries/services overseas
- 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

Skills

Languages: Python, Go, JavaScript/TypeScript, Java, C, Assembly, Kotlin, R, HTML/CSS, C++ (WIP)
Frameworks: Pandas, NumPy, React, Node.js, Express.js, Spring Boot, Scrum/Agile, MVC, Gorm, Viper, DevOps
Tools/Systems: Git, GitHub, Docker, Postman, MongoDB, Google Firebase, JupyterLab, PostgreSQL, Redis, Android Studio, Tableau, UNIX/Linux, Amazon AWS (WIP)
Other: Financial Models, Networking Protocols, Statistical Modeling, Machine Learning Models