Bryan Yung

Germantown, MD | byung806@gmail.com | 240-885-1246

EDUCATION

CARNEGIE MELLON UNIVERSITY | May 2029 (Expected)
B.S., School of Computer Science | *Pittsburgh, PA*
- Relevant Coursework: 15-122 Principles of Imperative Computation, 15-151 Mathematical Foundations for Computer Science, 21-241 Matrices and Linear Transformations

POOLESVILLE HIGH SCHOOL | May 2025
Science, Math, and Computer Science Program | *Poolesville, MD*
- GPA: 4.00; SAT: 1600/1600; PSAT: 1520/1520

AWARDS

USA Computing Olympiad - Platinum Division, Top 2-5% globally (2022-Present)
Regeneron Science Talent Search - Top 300 Scholar (2024) *(for Neural Systems Lab research)*
Apple WWDC Swift Student Challenge - 1 of 350 winners internationally (2025)
AIME - 5-time Qualifier; USAMO Index 245

EXPERIENCE

Neural Systems Lab | University of Maryland | Jun 2024 - Sep 2024
Research Intern | *College Park, MD*
- Pioneered novel diagnostic method to make machine diagnosis explainable by clinicians.
- Built ML pipeline (DWT, KNN/SVM) with Jupyter/Python to denoise/classify raw EEG data.
- Achieved +16% accuracy gain by isolating key EEG bands and features predictive of dementia.

Boy Scouts Management System Project | Mar 2023 - Aug 2023
Lead Programmer | *Virtual*
- Worked with client (AGILE) to design & implement full-stack desktop app using Python.
- Automated troop scheduling, rosters, reporting, and training management for 100+ members.
- Reduced troop's administrative workload by 66% per week, saving 10+ hours of manual work.

PROJECTS

Runway Mobile App | Jan 2024 - May 2025
Co-founder & Lead Developer | *Virtual*
- Built cross-platform educational mobile app and backend with React Native and Firebase.
- Reached 1300+ downloads and 50+ monthly active users in 100+ countries within 6 months.
- Performed load & security testing with Firestore to ensure scalability & user data protection.
- Collaborated with educators in 5+ countries to build a library of 200+ interactive lessons.

First Light (App) | Apple Swift Student Challenge Winner | Feb 2025
Software Developer | *Virtual*
- Designed colorblind-accessible 3D experience to teach about firework chemistry in real-time.
- Implemented particles, custom physics, and immersive sound design with Swift & SceneKit.

SKILLS

Languages	C, C++, Python, Java, Swift, TypeScript, SQL
Frameworks/Tools	React, Next.js, React Native, Node.js, Git, Testing/CI, Unix/Linux, Docker
DB & Cloud	Firestore, Firebase Auth/Functions, AWS S3, Vercel
Data/ML	SciPy, NumPy, Pandas, scikit-learn, DWT, SVM, KNN