Arya Bhanushali

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EDUCATION

Georgia Institute of Technology - College of Computing   Expected: May 2027

B.S. in Computer Science (AI & Human-Computer Interaction), Minor in Computation & Cognition   *Atlanta, GA*

- Relevant Coursework: AI, Object-Oriented Programming, Data Structures & Algorithms, UI Design, Computer Organization
- Honors & Affiliations: Dean's List, Alpha Kappa Psi, Bits of Good, Society of Women Engineers, Zell Miller Scholar, NCWIT Award Recipient

EXPERIENCE

Elevance Health   May 2025 – August 2025

Incoming AI & Digital Platforms Intern   *Hybrid*

Murty Lab   February 2025 – Present

Undergraduate Researcher   *Atlanta, GA*

- Designed neural networks with TopoNets for human-like topography, reducing parameters by ∼19% without accuracy loss
- Analyzed ResNet face-selective neurons with PyTorch/PCA, showing 6× face response, revealing brain-like specialization
- Conducted lesion and activation studies with PyTorch hooks, generating images that maximally activate neurons across layers

Bhasin Biomedicine Research Lab   January 2022 – January 2024

AI/ML Intern   *Atlanta, GA*

- Prototyped a CAD-modeled whole-slide imaging scanner for high-resolution digitization, enabling remote pathology review
- Built Python/OpenCV pipeline to stitch 1,000+ microscopic tiles into seamless whole-slide images, cutting assembly time by 50%
- Trained TensorFlow neural networks to detect tumors on whole-slide digital images, improving diagnostic speed by 80%

Fortira   May 2021 – August 2021

Web Development Intern   *Remote*

- Enhanced Fortira's front-end application using HTML, CSS, and web scraping tools, ensuring integration with backend
- Optimized data pipelines by streamlining advanced web scraper techniques, accelerating data transfer to new applications by 50%
- Collaborated with the UI/UX team to redesign interfaces, improving data visualization and usability for over 500 end-users

PROJECTS

Django Web Application: Atlanta Food Finder   August 2024 – Present

Object-Oriented Programming Methods   *Atlanta, GA*

- Spearheaded front-end using HTML, CSS, and JavaScript to design accessible user interfaces aligned with WCAG standards
- Engineered scalable integration of Google Maps API, enabling dynamic data visualization and improving frontend responsiveness
- Applied Agile and Scrum practices to manage sprints, drive iterative development, and align team collaboration for feature delivery

Insulin Dosage Predictor   January 2024 – Present

Vertically Integrated Project: Chronic Diseases & Diabetes   *Atlanta, GA*

- Trained LSTM regression model with Adam optimizer to capture time-based patterns in dynamic data such as physical activity
- Performed time series sequencing, data scaling, and feature selection on 50+ patient datasets enhancing model performance
- Improved personalized diabetes care by achieving about 70% precision in insulin dosage predictions, reducing risk of hypoglycemia

COVID-19 Versus Thrombosis: Data Analysis   May 2023

Global Thrombosis Forum   *Atlanta, GA*

- Leveraged Python libraries to compute Pearson's correlation (0.78), revealing strong link between COVID-19 and thrombosis risk
- Built and validated a scikit-learn linear regression model using cross-validation on patient data to accurately predict thrombosis
- Authored and presented abstract summarizing findings on increased blood clot risks, highlighting importance of preventative care

The Mind and Its Program   May 2021

Personal Project   *Atlanta, GA*

- Conducted interdisciplinary research linking cognitive processes and software logic, revealing parallels between minds and programs
- Wrote and published *The Mind and Its Program*, synthesizing research insights on intersections of cognitive and computer science

LEADERSHIP

Bits of Good   August 2024 – Present

Nonprofit Director   *Atlanta, GA*

- Directed nonprofit committee, overseeing outreach and serving as executive liaison between nonprofits and developer teams
- Identified impactful tech projects by translating nonprofit challenges into actionable developer tasks, ensuring feasibility and value

Atlanta Youth Red Cross Club   May 2020 – May 2022

President   *Atlanta, GA*

- Led monthly humanitarian projects including Hurricane Laura Relief, COVID relief, and card donations to 150+ healthcare workers
- Fostered a network that inhibited a collective humanitarian impact through initiating collaboration with 10+ Red Cross chapters

SKILLS

- **Programming Languages:** Python, JavaScript, Java, C, HTML/CSS, SQL, Bash, TypeScript, Terraform
- **Frameworks/Tools:** TensorFlow, PyTorch, scikit-learn, Django, React.js, Git, AWS, APIs, Hugging Face, Kubernetes
- **Interests:** Crocheting, Astronomy, Nonfiction, Writing, Traveling, Classical Dance, Piano, Cognitive Psychology, Languages