Kushal Gadamsetty

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EDUCATION

Barrett The Honors College at Arizona State University — Tempe, AZ
Bachelor of Science in Computer Science and Mathematics (Statistics); GPA: 4.0/4.0 — *May 2028*

Relevant Coursework; Data Structures and Algorithms, Applied Linear Algebra, Computer Vision, Multivariable Calculus, Discrete Mathematical Structures,

WORK EXPERIENCE

AI and Deep Learning for Imaging and Medicine Lab — April 2025 – Present
Research Assistant — *Tempe, AZ*
- Engineered automated ML training pipeline processing **300GB+ X-ray datasets** on ASU GPU infrastructure, developing **Python scripts** and **SLURM scheduling** reducing training setup time by **40%+**
- Built **ResNet-50** classification and segmentation models achieving **95%+** accuracy across **18** organ-specific classifications, collaborating with **10+** researchers on comparative analysis and cancer detection

Tamid Group — November 2024 – Present
Frontend Web Developer — *Tempe, AZ*
- Developed **full-stack applications** serving **1000+** users using **React** and **Node**, building reusable components and **SQL database** integrations for improved user experience
- Architected **cloud infrastructure** for Israeli startup Tut-a-Tet on **AWS EC2**, establishing scalable deployment and monitoring systems supporting **500+** concurrent tutoring sessions

Biodesign Institute at ASU — September 2024 – May 2025
Undergraduate Researcher — *Tempe, AZ*
- Built data processing pipeline transforming **100GB+** network topology data from **CSV to JSON**, implementing **Python ETL** workflows to analyze **10+** Russian ISP systems and predict node censorship probability using **bayesian inference**
- Developed network visualizations using **Matplotlib** with **PyStan** for statistical analysis, creating interactive web dashboards of connected network nodes with **50%** faster rendering and collaborating with **4+** Phd researchers

PROJECTS

Badgesheet | *React, Supabase, Stripe, Git, Typescript, Javascript* — **Site**
- Built a **full-stack SaaS platform** processing **10,000+** name badge generations for event organizers
- Architected a scalable **PostgreSQL** database and created a **Stripe payment API** supporting **500+** concurrent users
- Implemented **serverless edge functions** to reduce API response latency by **40%** and minimize hosting costs

Phoenix Air Quality Dashboard (Hackathon Winner) | *React, Node.js, Python, Tableau, JavaScript* — **Site**
- Built a **full-stack web application** serving **1,000+** users across Phoenix metropolitan area with real-time air quality data
- Created a custom **API** to access air quality sensors citywide, implementing **CI/CD pipelines** for Vercel deployment
- Led cross-functional team of **5** developers to secure **first place** and **$2,875** prize implementing agile development

Autonomous Maze Navigation Robot | *MATLAB, Control Systems, Lego EV3* — **Site**
- Built **embedded control system** processing **3+ sensor** inputs at **10Hz** achieving **95%+** maze completion
- Developed **modular MATLAB** codebase with **200+ lines** of optimized **PID** control algorithms for navigation
- Implemented real-time **state machine** with **5 operational modes** and sub-second obstacle response times
- Created keyboard-driven **manual override system** supporting **8+** control commands with failsafe protocols

Secure DNS and VPN Infrastructure | *AWS EC2, Oracle Cloud, WireGuard, Unix, Docker*
- Built distributed **DNS infrastructure** processing **20,000+** daily queries with **99%+** uptime
- Architected **dual-cloud system** with **AWS EC2** and **Oracle Cloud**, supporting **12+ users** and **300GB+ traffic**
- Implemented **containerized** WireGuard VPN with automated deployment and failover protocols

TECHNICAL SKILLS

Languages: C/C++, Python, JavaScript, Java, HTML, CSS, Matlab, Typescript, Rust, Scheme, Assembly
Libraries/Tools: Docker, React, Oracle Cloud, Git, AWS Cloud, Unix/Linux, Stan, NumPy, Pandas, Slurm, PyTorch
Interests: Weightlifting, Raspberry Pi Hobbyist, Anime, Soccer, iPod Classic Enthusiast, 2024 NASA Space Camp Graduate

LEADERSHIP

Lead Volunteer | *SEWA International, St Mary's Food Bank*
- Led high-volume assembly team of 10+ volunteers packaging 500+ meal kits monthly for food-insecure families

Strategy Consultant | *New Venture Group at ASU*
- Analyzed search algorithms for YC startup Trieve, delivering data-driven recommendations via competitive analysis